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- حافظ على الصلاة ؛ فالصلاة عماد الدين.
- أطع والديك وأحب زملاءك.
- أطع معلمك ومعلمتك وأحبهما.
- حافظ على نظافة كتبك وأدواتك.
- حافظ على كل جزء من مدرستك.
- احترم قواعد المرور.

الأشـــراف برنتنج هاوس



ARAB REPUBLIC OF EGYPT
Ministry of Education
Book Sector

MATHEMATICS

For Primary Two

Second Term







2015 - 2016



ARAB REPUBLIC OF EGYPT
Ministry of Education
BOOK Sector

Mathematics

For Primary 2
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2015 - 2016

Introduction

A foreword to Teachers and Parents

Dear teachers and parents,

We are pleased to present you with this book as part of a developed chain of mathematics textbooks. For maximum benefit, please note the following:

1- Before solving the story problems, please read them out carefully to your pupils and make sure they are understood.

2- There are several correct answers to some of the questions. It is sufficient for your pupils to mention only one or some according to what is required in the problem. It is with these types of questions that we hope to develop our pupils' creativity.

3- An attempt has been made to remove barriers between mathematics and other areas of knowledge on the one hand, and mathematics and practical life on the other hand, according to what has come to be known as "curriculum integration". If today's scientists are mainly concerned with "the unity of human knowledge", then the best time to start is the primary stage. Therefore, it is expected that every single detail in the book will be given attention and care even if it does not belong to "mathematics" in the narrow sense of the word.

4- Some affective aims have been included in this curriculum. This is achieved by forming attitudes towards some social issues (such as the population issue) besides developing appreciation and interests towards the study of mathematics. Therefore, required discussions, comments, and other like responses should not be ignored under the pretext that they are not included in school tests.

5- It is not only the customary standards of education in Egypt that have been given apparent attention, but also modern trends in the teaching of mathematics. Among these are presenting comprehensive knowledge of numbers before details pertaining to the place value and performing arithmetic operations.

6- In the course of designing this book, circumstances of Egyptian schools have been taken into consideration. Hence the use of measuring tools and the performance of practical experiments have been kept to a minimum.

7- There are activities and exercises at the end of each unit. The exercises are typical of the preplanned output of each unit. The activities, however, might sometimes exceed the contents of the unit with the purpose of reviving extracurricular activities in mathematics. These, in general, support the output of the unit and can be viewed as enrichment activities at the same time.

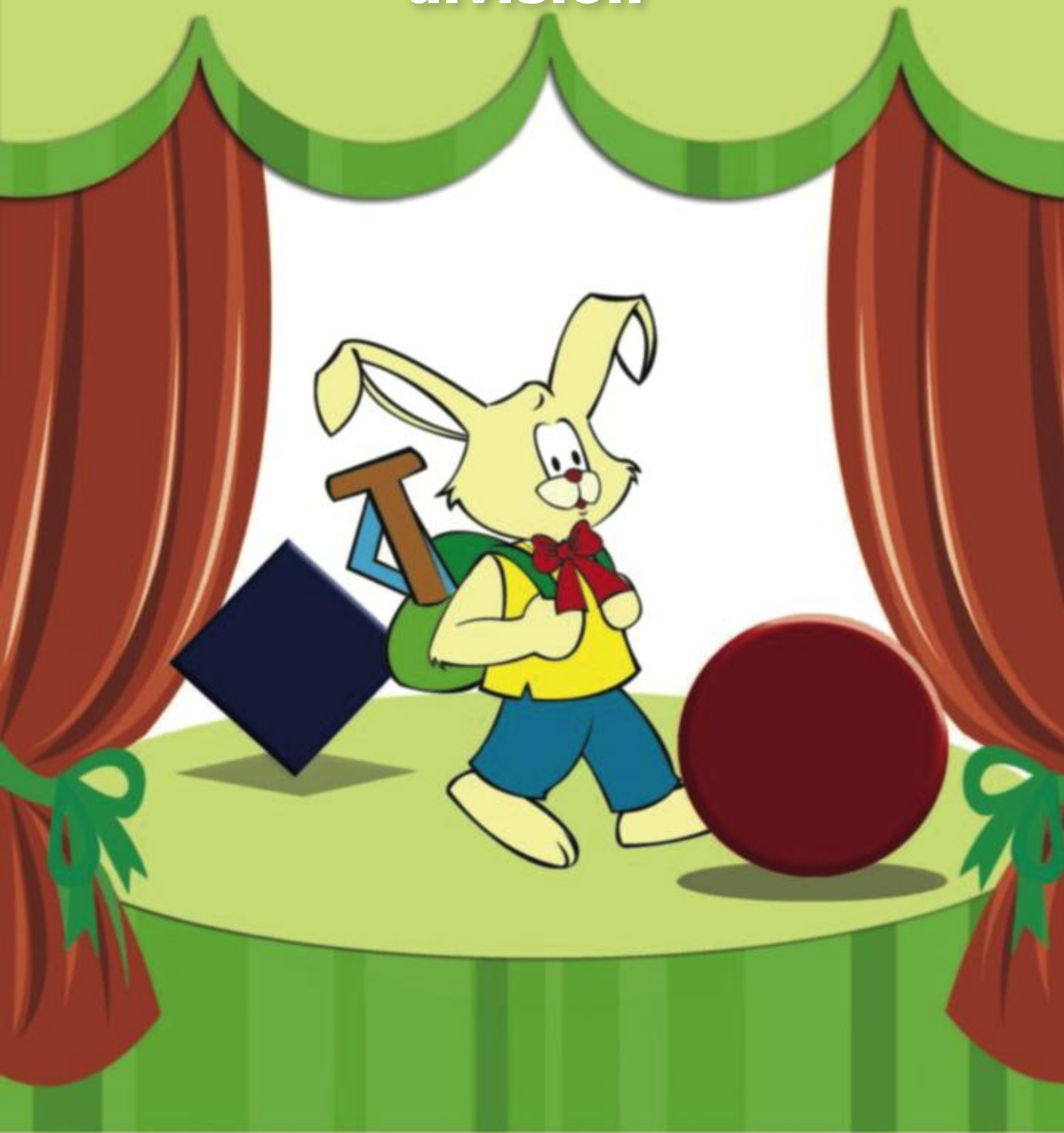
May God guide us all to what is in the best interest of our beloved country.

The authors

Table of Contents

Unit 1

Multiplication and division



Lesson 1

The meaning of the multiplication operation

In the opposite figure:

Shows a group of bicycles can express the number of wheels as:

$$2 + 2 + 2 + 2 = 8$$

Now, we can express this number in a new Way: 2×4

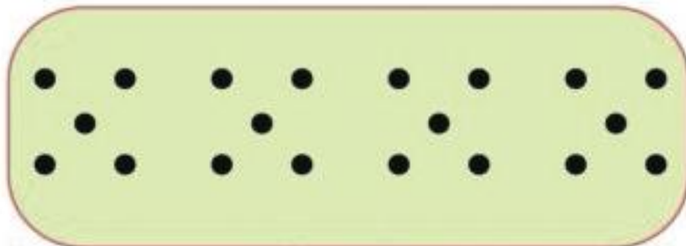


Where:

- 2 number of wheels in each bicycle
- 4 number of bicycles
- $\times$ The sign of the multipication operation
- 2×4 is read as two times four, then $2 + 2 + 2 + 2 = 2 \times 4 = 8$

(1) Express the number in each of the following in two ways:
[Use the addition sign (+) and the multiplication sign (×)]





3 + ... x ......

..... + ... + ... + ... x ......

(2) Complete as in the example:

$3 + 3 + 3 + 3 = 3 \times 4$

$5 + 5 = 5 \times$ ....

$6 + 6 + 6 = 6 \times$ ....

$4 + 4 + 4 + 4 = 4 \times$ ....

$8 + 8 + 8 + 8 + 8 = 8 \times$ ....

(3) Complete as in the example:

$5 \times 3 = 5 + 5 + 5$

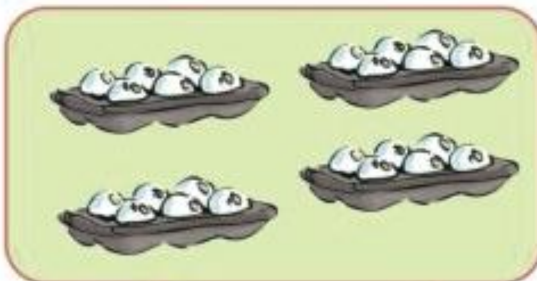
$4 \times 2 =$ .... + ...

$3 \times 3 =$ .... + ... + ...

$2 \times 1 =$ ....

$1 \times 5 =$ .... + ... + ... + ... + ...

(4) Use the multiplication sign (×) :

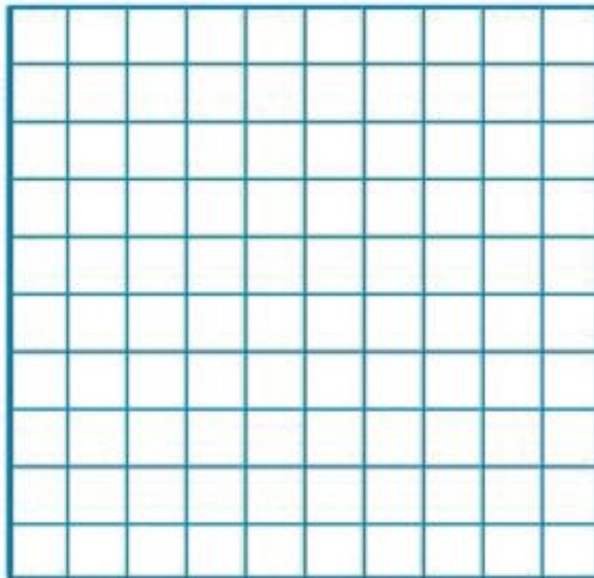


.... × ....



.... × ....

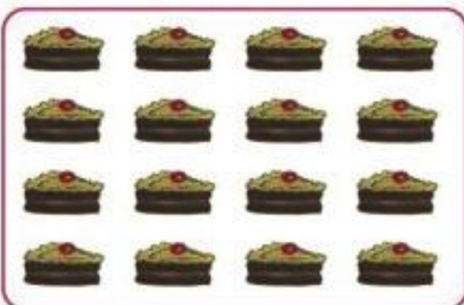
(5) In the opposite lattice, colour a number of 3 x 4 small squares:



(6) Match each shape with the suitable card:



6 x 5



4 x 4



5 x 1

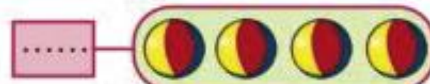
Lesson 2

The properties of the multiplication operation

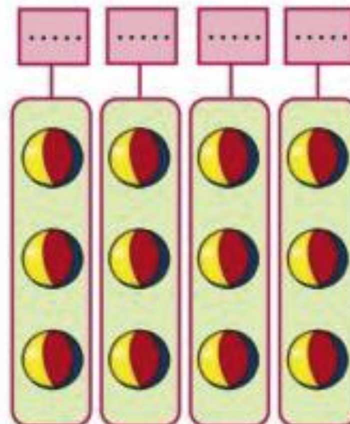
Complete to express the number of balls:



4 + ... + ... = 4 x ....







3 + ... + ... + ... = 3 x .....

Notice that we have written the number of balls in two ways: 4 x 3 and 3 x 4

Therefore, 4 x 3 = 3 x 4

(1) Complete:

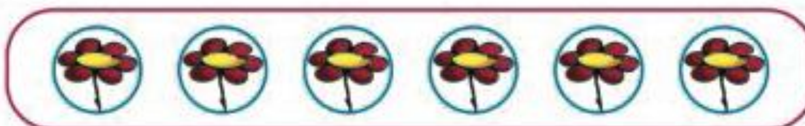
3 × 5 = 5 x	1 × 7 = 7 x ....
6 × 4 = 4 x	8 × 2 = 2 x ....
4 × 9 = ... x	5 × 8 = ... x ....

(2) Complete:



1 x .... = 1+ .... + ... + ... = 4

1 x4 = ... and also 4 x 1 = ...



1 x .... = 1+ .... = 6

1 x .... = 6 and also .... x 1 = 6

1 × any number = the same number

(3) Find the result for each of the following:

1 x 7 = ... , 1 x 3 = ...

1 x 5 = ... , 1 x 9 = ...

1 x 8 = ... , 1 x 6 = ...

4 x 1 = ... , 2 x 1 = ...

(4) Complete as in the in the example:

$0 \times 3 = 0 + 0 + 0 = 0$

$0 \times 4 =$ .... + ... + ... + ... = ...

$0 \times 2 =$ .... + ... = ...

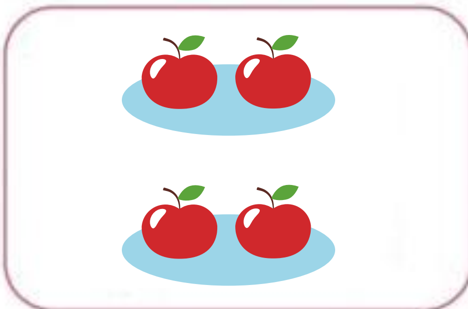
Zero × any number = zero

Lesson 3

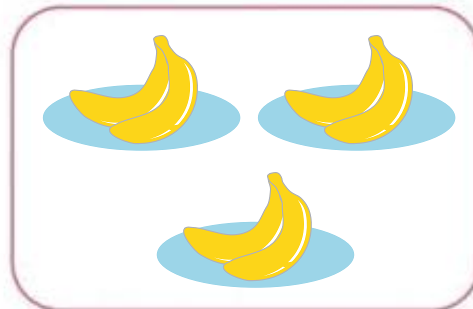
The Multiplication Table (up to 5)

Multiplying 2 x a number or a number x 2

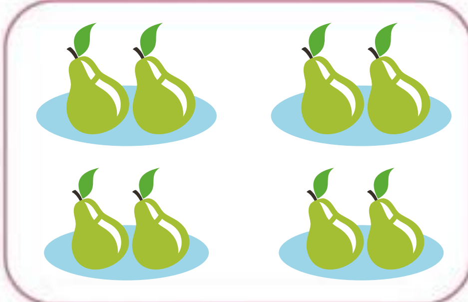
(1) Complete:



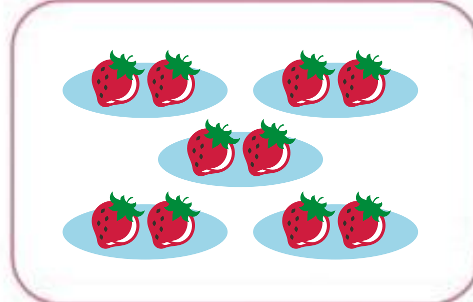
2 × 2 = ...



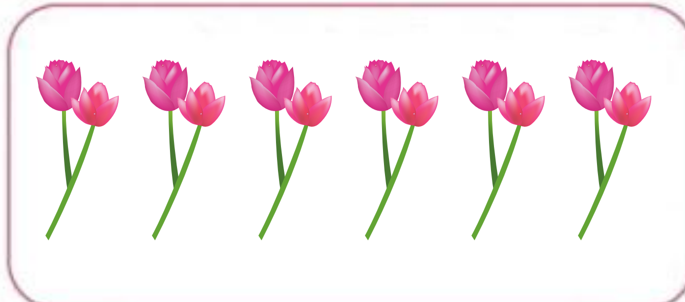
2 × 3 = ...



2 × 4 = ...



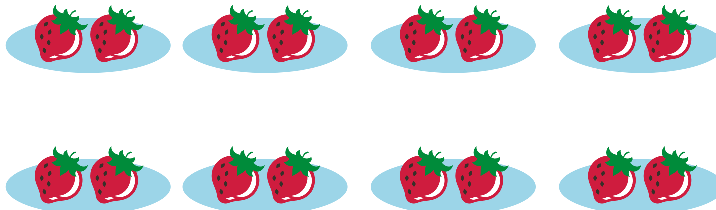
2 × 5 = ...



2 × 6 = ...



2 × 7 = ...



2 × 8 = ...



2 × 9 = ...

(2) Complete

× 2

0	1	2	3	4	5	6	7	8	9
0	2	4	6						

(3) Find the product:

(a)

$$\begin{array}{r} 6 \\ \times\ 2 \\ \hline \end{array} \quad \begin{array}{r} 3 \\ \times\ 2 \\ \hline \end{array} \quad \begin{array}{r} 2 \\ \times\ 2 \\ \hline \end{array} \quad \begin{array}{r} 7 \\ \times\ 2 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ \times\ 2 \\ \hline \end{array}$$

(b)

$2 \times 1 =$	$2 \times 8 =$	$2 \times 4 =$
$2 \times 0 =$	$2 \times 5 =$	

(4) Complete:

(a)

$$\begin{array}{r} 2 \\ \times\ 2 \\ \hline \square \end{array} \quad \begin{array}{r} 2 \\ \times\ \square \\ \hline 8 \end{array} \quad \begin{array}{r} 2 \\ \times\ \square \\ \hline 10 \end{array} \quad \begin{array}{r} 2 \\ \times\ \square \\ \hline 2 \end{array}$$

(b)

$2 \times \square = 6$ $\qquad$ $2 \times 5 = \square$

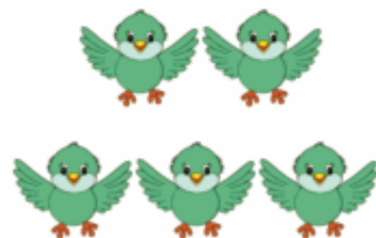
$2 \times \square = 18$ $\qquad$ $2 \times 7 = \square$

(5) Join the cards that show the same number:

2 × 7	4 × 2	4 + 4	2 × 4
		8	
7 + 7	5 × 2		2 × 5
	7 × 2	10	
	14		5 + 5

(6) Complete as in the example:

Number of wings for
3 birds = $2 \times 3 = 6$

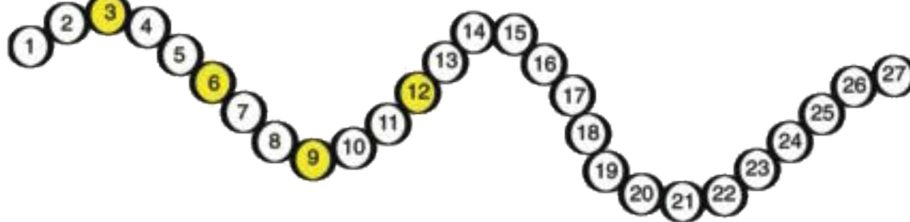


(a) Number of wings for
4 birds = ... × ..... = ...

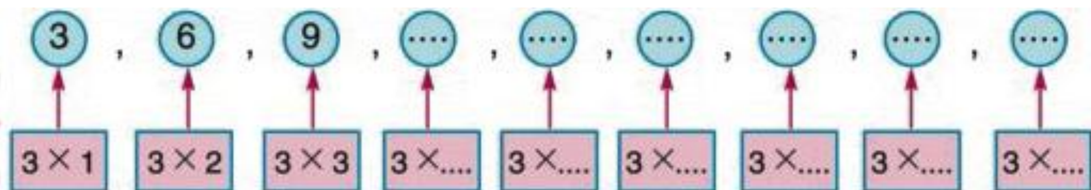
(b) Number of wings for
5 birds = ... × ..... = ...



Multiplying 3 x a number or a number x 3



(1) This rabbit jumps in a systematic way on this number chain. He leaves two consecutive numbers and stands on the third number..... and so on.
Help the rabbit by colouring the numbers he will stand on and complete:....



(2) Complete:

× 3

0	1	2	3	4	5	6	7	8	9
0	3	6	9						

(3) Complete:

(a)

$$\begin{array}{r} 5 \\ \times \quad 3 \\ \hline \square \end{array} \qquad \begin{array}{r} 6 \\ \times \quad \square \\ \hline 18 \end{array} \qquad \begin{array}{r} \square \\ \times \quad 3 \\ \hline 24 \end{array} \qquad \begin{array}{r} 9 \\ \times \quad 3 \\ \hline \square \end{array}$$

(b) $3 \times \square = 21$ | $\square \times 3 = 3$

$\square \times 4 = 12$ | $2 \times \square = 6$

(c) $2 \times$ ...... = 12 = $3 \times$ .... $\times 9$ = 18 = $3 \times$ ......

(4) Complete using <, > or =:

(a) $2 \times 5 \ \square \ 3 \times 5$ (c) $3 \times 0 \ \square \ 2 \times 0$ (e) $3 \times 6 \ \square \ 2 \times 9$

(b) $3 + 3 \ \square \ 3 \times 3$ (d) $2 \times 7 \ \square \ 3 \times 8$ (f) $3 \times 5 \ \square \ 5 \times 3$

(5) If the price of one ticket to enter one of the gardens is 3 pounds. How much do 7 tickets cost?

The price of 7 tickets = ... × .... = ...pounds

Multiplying 4 x a number or a number x 4

(1) Start with zero and from table (4) by adding 4 to each previous number:

4 × 0 = ...
4 × 1 = 4
4 × 2 = ...
4 × 3 = ...
4 × 4 = ...
4 × 5 = ...
4 × 6 = ...
4 × 7 = ...
4 × 8 = ...
4 × 9 = ...



The number of legs in 1 chair = 4

The number of legs in 2 chairs = 4 × 2
= 4 + 4 = 8

The number of legs in 3 chairs = 4 × 3
= 4 + 4 + 4 = 12

The number of legs in 4 chairs = 4 × 4
= 4 + 4 + 4 + 4
= 16

and so on ....

(2) Complete:

(a)

4
× 4
....

(b)

3
× 4
....

(c)

8
× 4
....

(d)

9
× ☐
36

(e)

☐
× 7
28

(f)

4
× ☐
24

(g) 5 × 4 = ...

(h) 4 × 1 = ...

(3) Every rabbit has 4 legs. How many legs do five rabbits have?

The number of legs of 5 rabbits =

4 x .... = ...



(4) If every plane has 4 engines, how many engines do 8 planes have?

The number of engines = ... x .... = ...

(5) Khaled bought 4 kilograms of cheese for 9 pounds a kilogram. How much did the cheese cost?

The cheese cost = ... x .... = ... pounds.

Multiplying 5 x a number or a number x 5

(1) Complete:

5 x 0 = ...	0 x 5 = ...
5 x 1 = 5	1 x 5 = ...
5 x 2 = ...	2 x 5 = ...
5 x 3 = ...	3 x 5 = ...
5 x 4 = ...	4 x 5 = ...
5 x 5 = ...	5 x 5 = ...
5 x 6 = ...	6 x 5 = ...
5 x 7 = ...	7 x 5 = ...
5 x 8 = ...	8 x 5 = ...
5 x 9 = ...	9 x 5 = ...

Put (✓) next to what you already know in the two tables.

(2) Complete:

(a) 5 × 3 = ...

(b) 5 × [ ] = 20

(c) 8 × 5 = ...

(d) 5 × 9 = ...

(e) [ ] × [ ] = 10

(f) 6 × [ ] = 30

(g) [ ] × [ ] = 5

(h) [ ] × [ ] = 25

(i) [ ] × [ ] = 35

(j) 5 x 0 = ...

(k) 3 x .... = 15

(l) .... × 4 = 16

(3) Calculate:


6 pounds


9 pounds

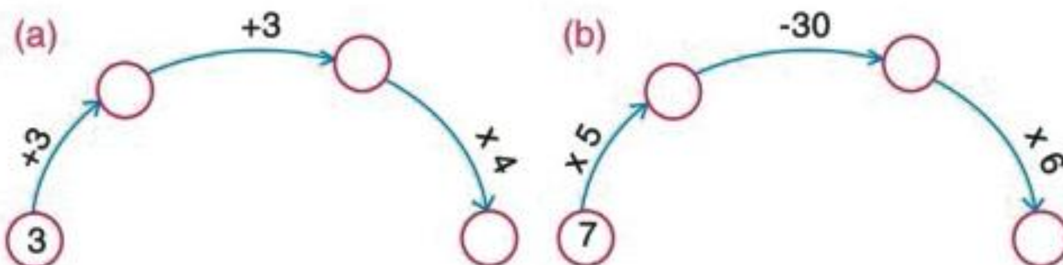

4 pounds


3 pounds

(a) The cost of 3 dolls .... (b) The cost of 4 books ....

(c) The cost of 5 balls .... (d) The cost of 8 bunches of flowers ....

(4) Complete:



(5) Complete the missing:

x	0	2	3	6	9
	5	3	4	2	5
=					

x	1	4	5	7	8
	7		5		
=		20		28	32

x	9		3	6	5
		7		5	
=	45	14	24		40

x	3	4		7	8
			6		2
=	15	24	30	21	

(6) Complete using (<, = or >) and write the missing numbers:

(a) 5 x 1 ☐ 2 x 2

(b) 3 x 2 ☐ 3 + 3

(c) 4 x 6 ☐ 5 x 4

(d) 7 x 3 ☐ 8 x 2

(e) 5 x 8 ☐ 9 x 4

(f) 25 + 16 ☐ 9 x 5

(g) 8 x 4 ☐ 4 x 8

(h) 3 x 7 ☐ 5 x 4

(i) .... x 9 > 6 x 4

(j) 50 > 5 x ....

**(7) Samir read 5 pages from his favourite story daily.
How many pages did Samir read in 8 days?**

Number of pages = ... × ....

= ....

(8) Mona has 7 candles. How many more do she need to make two rows, each of 5 candles?

Number of candles in the two rows = ... × .... = ...

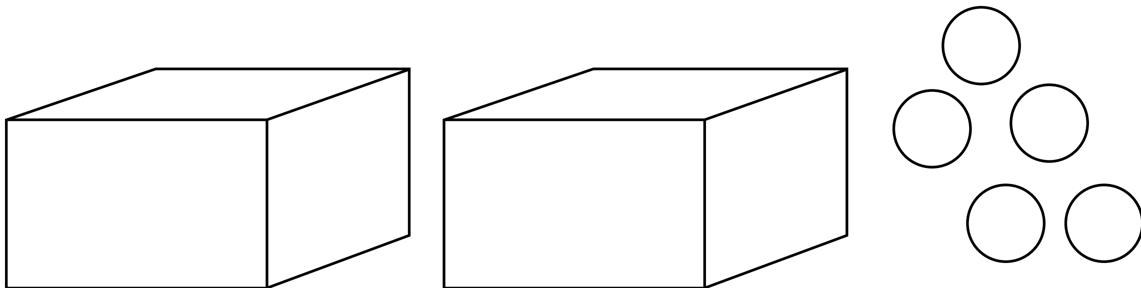
She need = ... – .... = ... Candles

Lesson 4

The meaning of the division operation

(1) Notice the following example:

Bassem and his friend Hazim want to distribute 6 balls equally in two boxes



How many balls for each box?

Each of the two friends can put 3 balls in his box.

Now, we can express this process in a new way: 6 ÷ 2

6 : number of balls

2 : number of boxes

÷ : the sign of the division operation and 6 ÷ 2 is read as 6 divided by 2

(2)

Aisha wants to distribute 8 oranges equally in 4 plates.

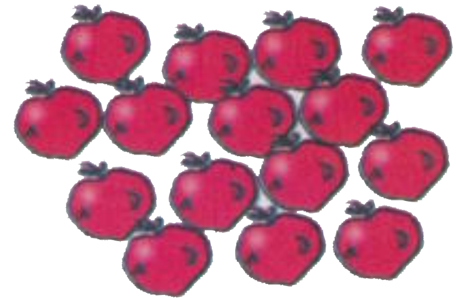


Complete:

The number of oranges in each plate

= .... ÷ .... = ...

(3)



Mai wants to distribute 15 apples in plates so that each plate has 5 apples.

Complete:

The number of plates

= .... ÷ .... = ...

(4)



Sameh wants to distribute 12 notebooks and 3 pencils equally to his three children.

Complete:

Each child`s share of notebooks

= .... ÷ .... = ...

Each child`s share of pencils

= .... ÷ .... = ...

The Relation between Division and Multiplication

The opposite figure represents the following multiplication operation.

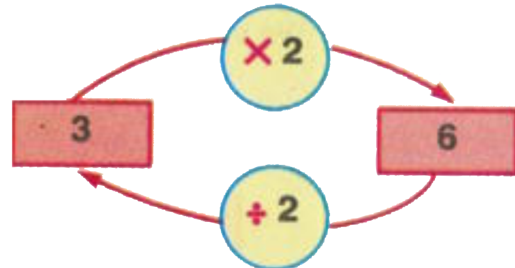


3 × 2 = 6

- The figure can also be considered to represent 6 apples divided into two parts (piles) with 3 apples each.

In this case the figure expresses the following division operation:

6 ÷ 2 = 3

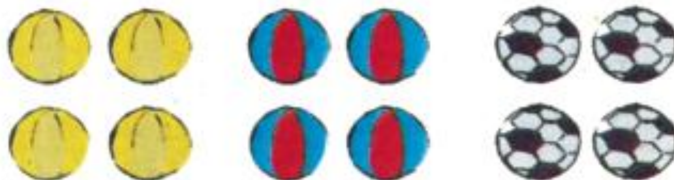


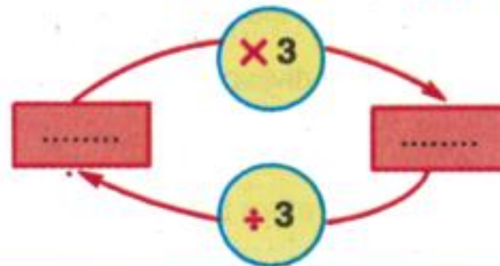
The two operations can be written together as follows:

(1) Notice the opposite figure and complete:

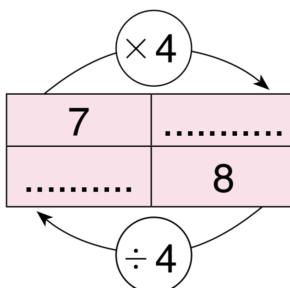
.... × 3 = ...

.... ÷ 3 = ...





(2) complete:



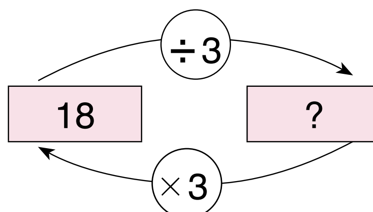
× ...

3	2	......
21	......	35

÷ ...

From this we can deduce that to find the quotient of 18 ÷ 3, we search for the number that gives 18 if multiplied by 3

therefore we have to complete the following figure:



Since we know that 6 * 3 = 18

Therefore 18 ÷ 3 = 6

(3) Find the number that gives the product 21 if multiplied by 3. Then deduce the corresponding division operation.

Complete

..............× 3 = 21 and therefore 21 ÷ 7 = ...

(4) Complete as in the example:

2 × 3 = 6	5 × 7 = 35
6 ÷ 2 = 3	35 ÷ 5 = 7
6 ÷ 3 = 2	35 ÷ 7 = 5

3 × 4 = 12	3 × 5 = ...
12 ÷ 3 = ...	15 ÷ ...... = ...
12 ÷ 4 = ...	15 ÷ ...... = ...

0 × 3 = 0	1 × 6 = 6
0 ÷ 3 = ...	6 ÷ 1 = ...
	6 ÷ 6 = ...

(5) Complete

(a) ...... × 3 = 21

21 ÷ 3 = ...

(c) ...... × 4 = 24

24 ÷ 4 = ...

(e) 4 × ...... = 36

36 ÷ 4 = ...

(b) ...... × 5 = 20

20 ÷ 5 = ...

(d) ...... × 8 = 40

40 ÷ 8 = ...

(f) 4 × ...... = 28

28 ÷ 7 = ...

(6) A piece of land was divided equally among 3 farmers. If the area of the land was 9 feddans, what is each farmer`s share?

Each farmer`s share = ... ÷ ...... = ... feddans

(7) Osama bought a number of books from the Family Library and distributed them equally among his family that consists of 4 members.

The share of each member of his family was 3 books.

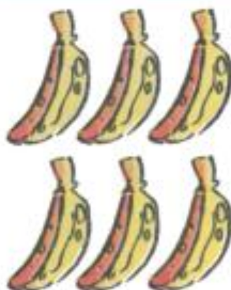


Complete: the number of books Osama bought:

= .... × .... = ...

Finding the Quotient

(1) Distribute equally and complete:




Each monkey gets [ ] bananas.

6 ÷ 3 = ...

(2)




[ ] Oranges are put in each basket.

8 ÷ 2 = ...

(3)




Each child gets [ ] pieces of biscuits.

12 ÷ 4 = ...

(4)




Each rabbit gets [ ] carrots.

...... ÷ ...... = ...

Note: the division operation 8 ÷ 4 = 2 can be written in the form

$$\text{divisor} \leftarrow 4\overline{\smash{)}8}\ \text{with quotient } 2 \text{ above and dividend } 8$$

2 → quotient

divisor ← 4 ⟌ 8

↓ dividend

Example: 10 ÷ 2 = 5 is written as.

$$2\overline{\smash{)}10}\ \text{with } 5 \text{ above}$$

(5) Find the quotient:

(a) 6 ÷ 2 = ...

(b) 10 ÷ 5 = ...

(c) 12 ÷ 3 = ...

(d) 15 ÷ 5 = ...

(e) 18 ÷ 2 = ...

(f) 24 ÷ 3 = ...

(g) 27 ÷ 3 = ...

(h) 25 ÷ 5 = ...

(i) 32 ÷ 4 = ...

(6) Find the quotient:

(a) $4\overline{\smash{)}8}$ .....

(b) $3\overline{\smash{)}9}$ .....

(c) $4\overline{\smash{)}12}$ .....

(d) $4\overline{\smash{)}28}$ .....

(e) $5\overline{\smash{)}35}$ .....

(f) $4\overline{\smash{)}36}$ .....

(g) $5\overline{\smash{)}45}$ .....

(h) $2\overline{\smash{)}14}$ .....

(i) $5\overline{\smash{)}40}$ .....

(7) Complete each of the following:

(a) 12 ÷ 2 = ☐

(b) 15 ÷ 3 = ☐

(c) 21 ÷ 3 = ☐

(d) 18 ÷ ☐ = 6

(e) 30 ÷ ☐ = 6

(f) 12 ÷ ☐ = 8

(g) ☐ ÷ 3 = 1

(h) ☐ ÷ 4 = 6

(i) ☐ ÷ 5 = 0

Exercises Unit 1

(1) Change the following addition operations into product of 2 numbers:

(a) 3 + 3 + 3 + 3 = ... × ....

(b) 5 + 5 + 5 + 5 + 5 = ... × ....

(c) 4 + 4 + 4 + 4 + 4 + 4 + 4 = ... × ....

(2) Complete:

5 × ☐ = 15	☐ × 3 = 12	18 ÷ ☐ = 9
2 × ☐ = 14	☐ × 4 = 16	20 ÷ ☐ = 5
3 × ☐ = 21	☐ × 6 = 6	32 ÷ ☐ = 8
2 × ☐ = 16	☐ × 9 = 45	36 ÷ ☐ = 9
4 × ☐ = 20	6 × ☐ = 30	4 × ☐ = 16
☐ × 3 = 27	☐ × 8 = 24	☐ × 2 = 12
16 ÷ 2 = ...	27 ÷ ... = 9	..... ÷ 4 = 7
24 ÷ 4 = ...	40 ÷ ... = 8	..... ÷ 5 = 7

(3) Complete:

x		3	4	5	
	5		0		6
=	5	12		30	24

(4) Complete using (< , = , or >)

(a) 5×8 ☐ 4×9

(b) 9×2 ☐ 3×9

(c) 5×3 ☐ 4×5

(d) $45 \div 5$ ☐ 3×3

(e) $21 \div 3$ ☐ $21 \div 7$

(f) $8 \div 2$ ☐ 8×2

(g) $15 \div 3$ ☐ 1×5

(5) Complete according to the same pattern:

(a) 2 , 4 , 6 , ... , ... , ... , ...

(b) 15 , ... , 25 , 30 , ... , ... , ...

(c) 45 , ... , ... , 20 , 25 , ... , ...

(d) 36 , 32 , 28 , ... , ... , ... , ...

(6) Underline the closest number to the resultant in each of the following:

(a)	3×7	(10 , 20 , 30)
(b)	4×8	(10 , 20 , 30)
(c)	$45 \div 5$	(10 , 20 , 30)
(d)	$9 \div 1$	(10 , 20 , 30)

(7) Mahmoud bought 3 books for 7 pounds each and a booklet for 3 pounds. What is the total amount he paid?

The price of the books = 3 x .... = ... pounds.
The total amount = ... + ... = ... pounds.

(8)

Hossam wants to distribute 15 notebooks equally in 5 bags. Find the number of notebooks in each bag:
Number of note books = ... ÷ .... = ...

(9)

Complete each of the following (with two different solutions)

12 = ☐ × ☐ ☐ ÷ ☐ = 3
= ☐ × ☐ ☐ ÷ ☐ = 3

Activities
Unit 1

(1) Find the product of the digits that form each of the following numbers:

Number	digits that form it	product
451	4 , 5, 1	20
172	....	....
911	....	....
119	....	....
360	....	....
121	....	....

(2) Write a 3-digit number whose product is 5.

....

(3) Write a 3-digit number whose product is 6.

....

(4) Write a 3-digit number whose product is 8.

....

(5) Ahmed arranged 6 marbles in different sets as in the following figure:

a

$6 \times 1 = 6$

b

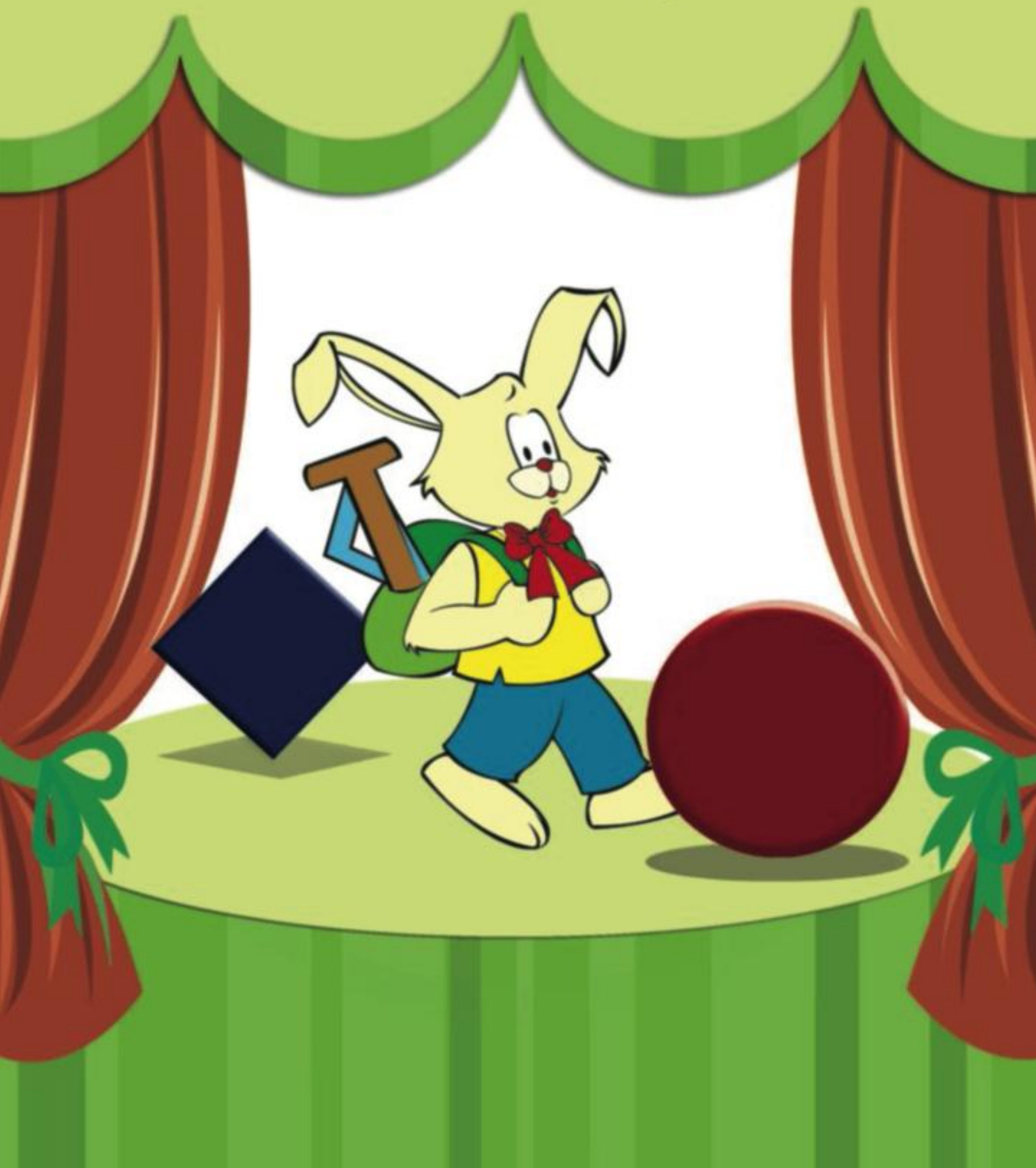
.... x .... = ...

c

.... x .... = ...

Unit 2

Geometry

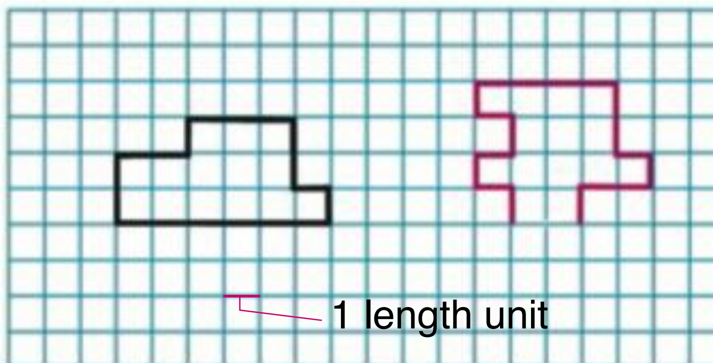


Lesson 1

The Perimeter

Lead-in:

With the help of the lattice, decide which is longer: the red or the black line?



If we consider the side length of the small square as a unit, find the length of the red and black lines.

The length of the red line = ... units.

The length of the black line = ... units.

N.B. The length of the black line (in the previous figure) is called the perimeter of the shape.

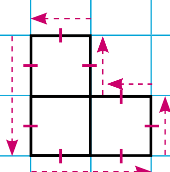
i.e: The perimeter of a shape is the length of the line that out lines that shape from external .

As for the red line, it is not closed and therefore does not outline a shape.

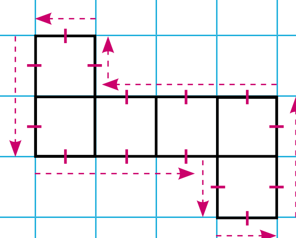
Complete as in example:

(Consider the side length of the small square as a unit.)

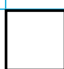
Example :



The perimeter = 8 length unit



The perimeter
= 14 length unit



The perimeter
= .... length unit



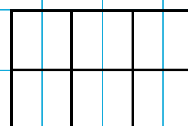
The perimeter
= .... length unit



The perimeter
= .... length unit



The perimeter
= .... length unit



The perimeter
= .... length unit



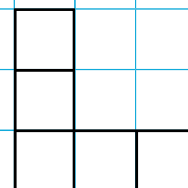
The perimeter
= .... length unit



The perimeter
= .... length unit



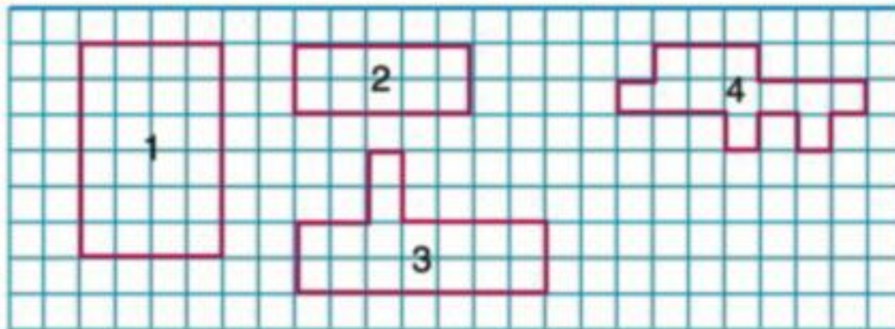
The perimeter
= .... length unit



The perimeter
= .... length unit

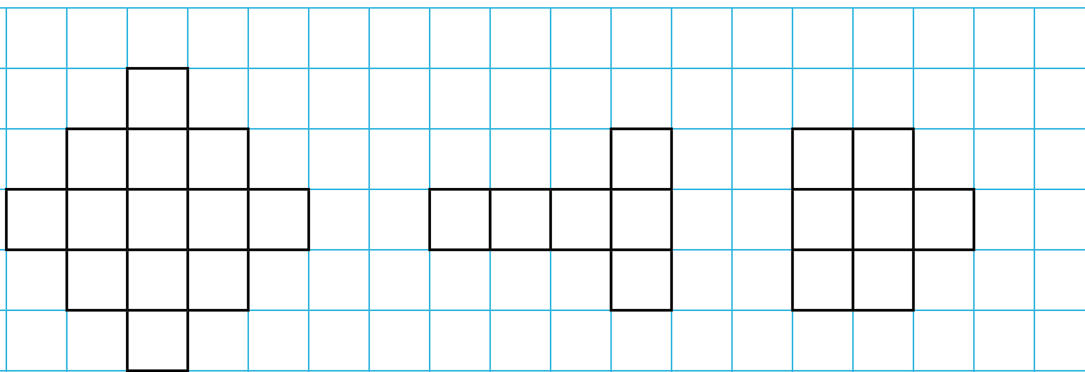
Exercises

(1) Calculate the perimeter of each of the following shapes (consider the side length of the small square as a unit):



Number of shape	1	2	3	4
Perimeter	....	....	....	....

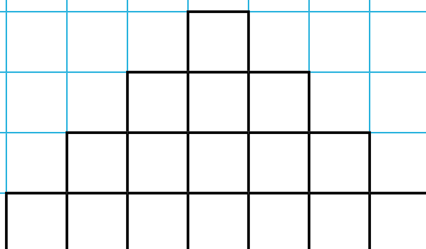
(2) Complete



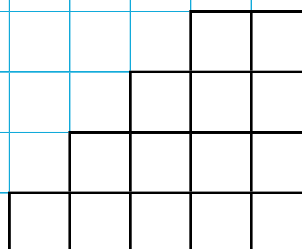
The perimeter
= .... length unit

The perimeter
= .... length unit

The perimeter
= .... length unit



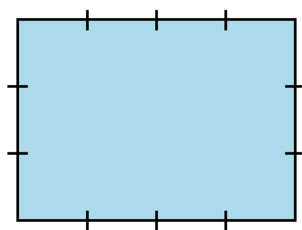
The perimeter
= .... length unit



The perimeter
= .... length unit

(3) Find the perimeter of the opposite figure:

Perimeter= .... units



Lesson 2

Shapes and Patterns

Examples:

1



pattern 1



2



pattern 2



3



pattern 3



(1) Complete according to the same pattern:

a

 ....

pattern



b

 ....

pattern

c



....

pattern

d



....

pattern

e



....

pattern

F



....

pattern

(2) Complete the colouring according to the same pattern:

a



b



Exercises
Unit 2

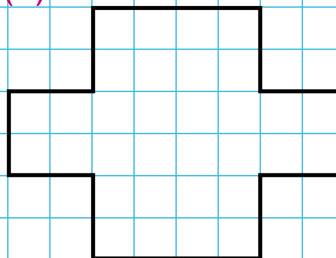
(1) Consider the side length of the small square as a unit length. find the perimeter of each of the following:

(a)



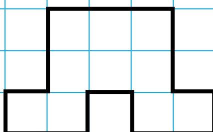
The perimeter
= .... length unit

(b)



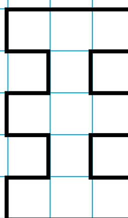
The perimeter
= .... length unit

(c)



The perimeter
= .... length unit

(d)



The perimeter
= .... length unit

(2) Complete according to the same pattern:

a



....

Pattern

b

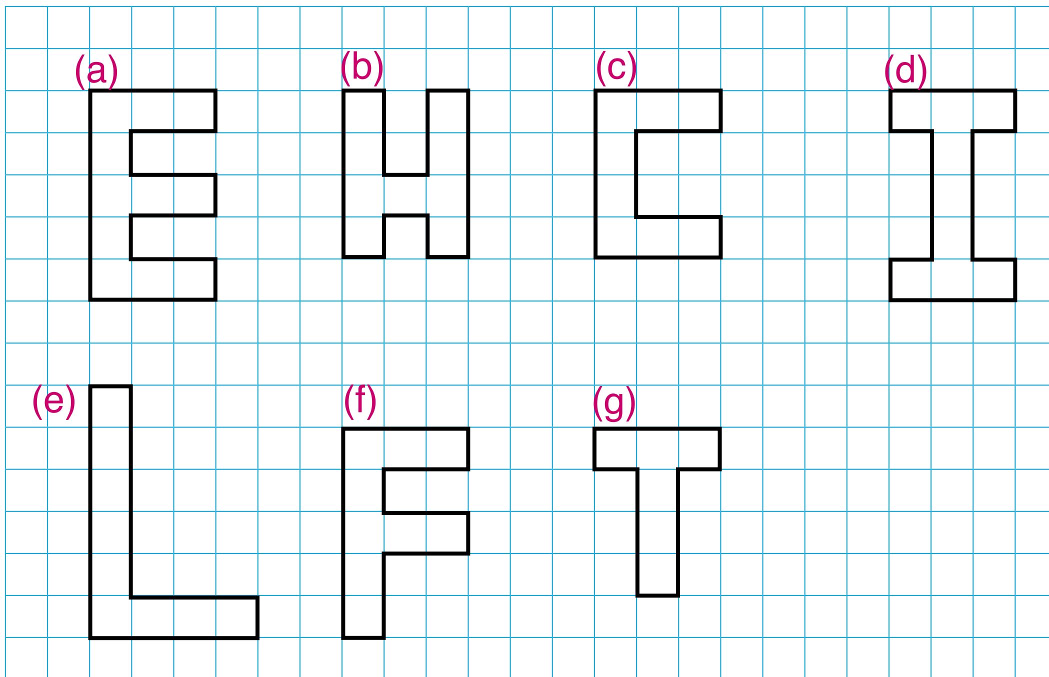


....

Pattern

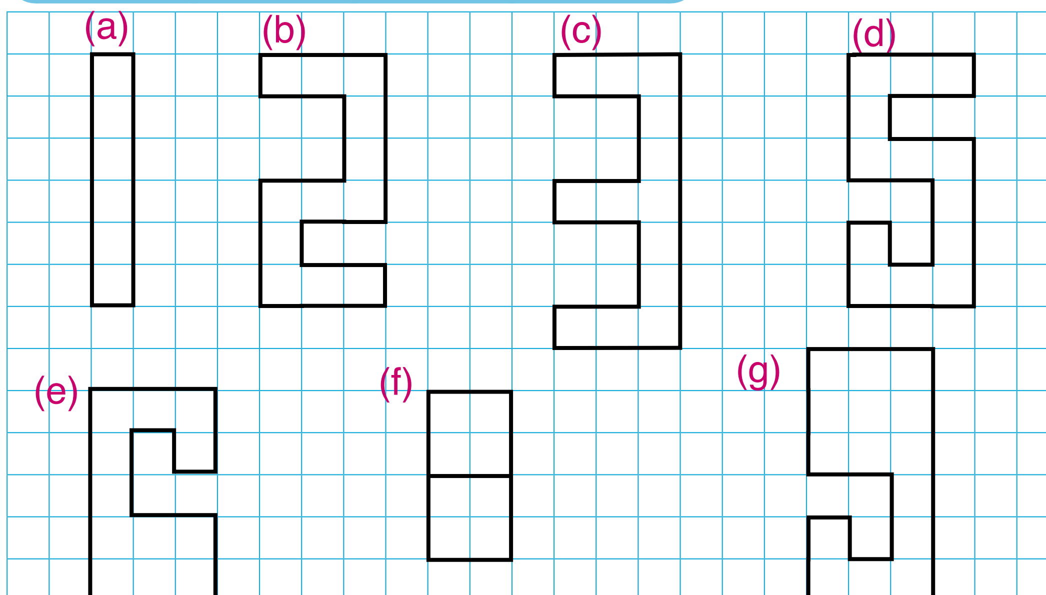
Activities
Unit 2

(1) Find the perimeter of each of the following



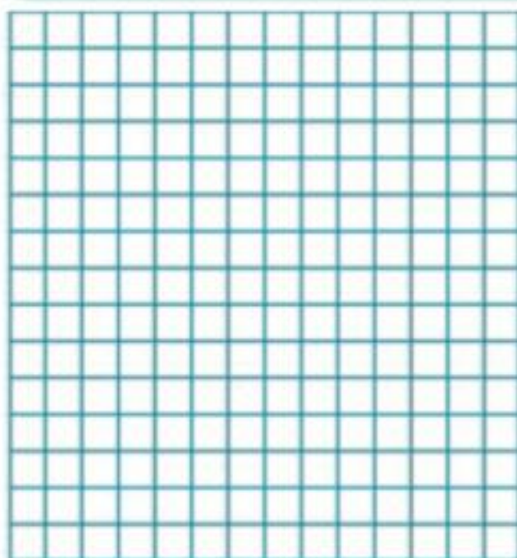
The shape	a	b	c	d	e	f	g
its perimeter							

(2) Find the perimeter of each of the following

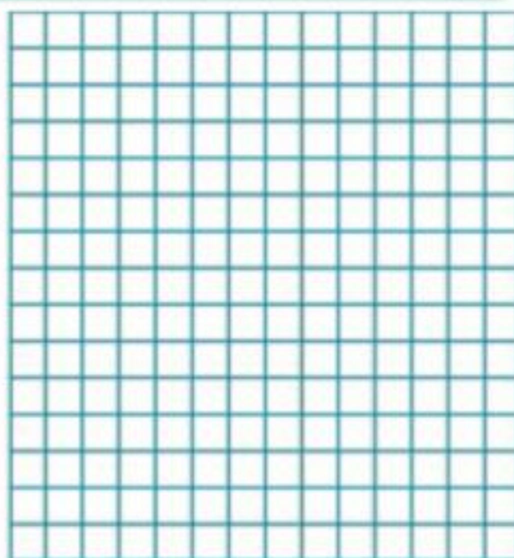


The shape	a	b	c	d	e	f	g
its perimeter							

(3) Consider the side length of the small square as a unit and draw on the lattice a polygon whose perimeter is 12 units of length and another polygon whose perimeter is 16 units of length:



First polygon



Second polygon

Unit 3
Fractions



Lesson 1

The fraction as a part of the unit

whole shape	The parts		
(circle)	1 part out of 2 OR: $\frac{1}{2}$ (half)	1 part out of 4 OR: $\frac{1}{4}$ (quarter)	1 part out of 8 OR: $\frac{1}{8}$ (eighth)
(rectangle)	1 part out of 3 OR: $\frac{1}{3}$ (third)	1 part out of 6 OR: $\frac{1}{6}$ (sixth)	1 part out of 9 OR: $\frac{1}{9}$ (nineth)
(square)	1 part out of 5 OR: $\frac{1}{5}$ (fifth)	1 part out of 7 OR: $\frac{1}{7}$ (seventh)	1 part out of 10 OR: $\frac{1}{10}$ (tenth)

(1) Write the fraction that represents the coloured part to the whole shape:



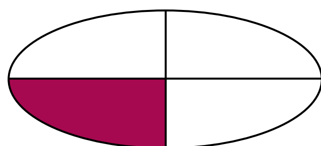
....



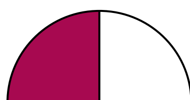
....



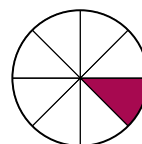
....



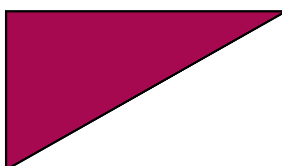
....



....



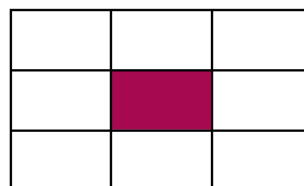
....



....



....

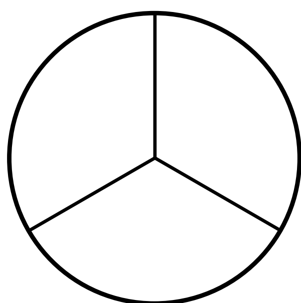


....

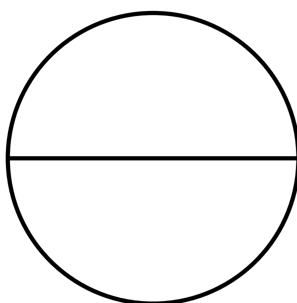
(2) Match from the first column to the suitable one of the second column

$\frac{1}{4}$ 	• Fifth
$\frac{1}{5}$ 	• Sixth
$\frac{1}{3}$ 	• quarter
$\frac{1}{8}$ 	• eighth
$\frac{1}{9}$ 	• nineth
	• third

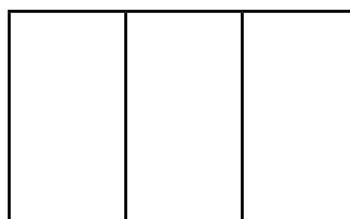
(3) Colour according to the given fraction



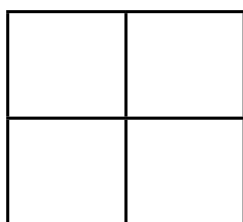
$\frac{1}{3}$



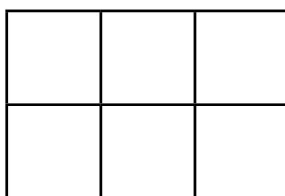
$\frac{1}{2}$



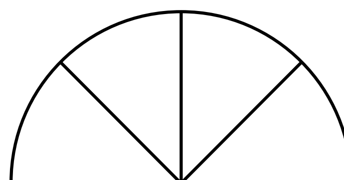
Third



quarter



Sixth



$\frac{1}{4}$

Lesson 2

The fraction as a part of a set

(1) Write the fraction according to the coloured part:

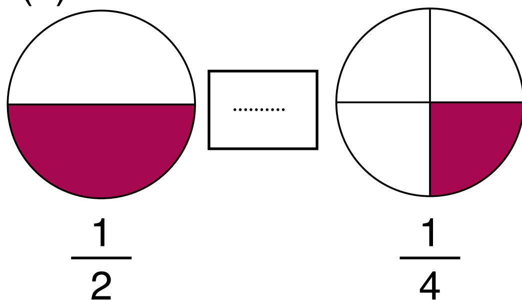

....


....


....

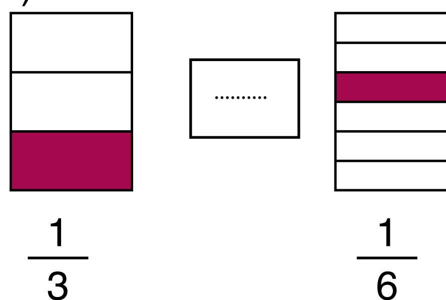
(2) Complete using < , > or = :

(a)



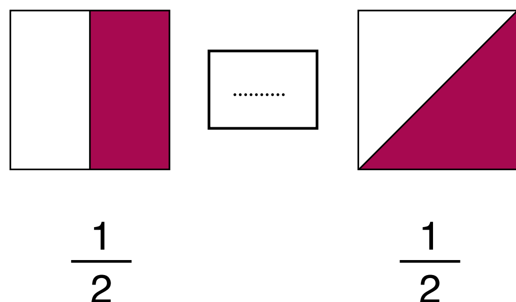
$\frac{1}{2}$ .... $\frac{1}{4}$

(b)



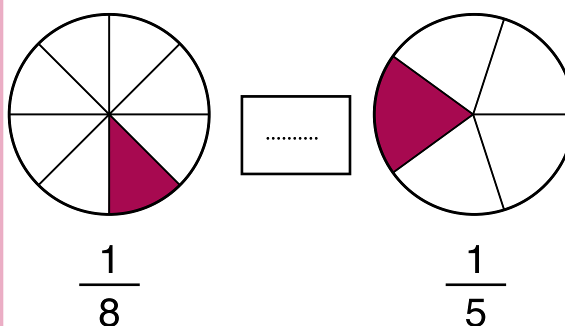
$\frac{1}{3}$ .... $\frac{1}{6}$

(c)



$\frac{1}{2}$ .... $\frac{1}{2}$

(d)



$\frac{1}{8}$ .... $\frac{1}{5}$

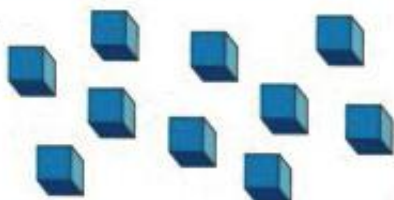
(3) This figure shows a set of flowers:



Notice that in the opposite figure half of the flowers are yellow and a quarter of the flowers are red.

Complete: $\frac{1}{2}$ the flowers are ...., $\frac{1}{4}$ of the flowers are........ and .... of the flowers are blue.

(4) Circle according to the given fraction:

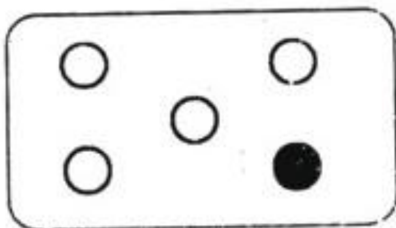




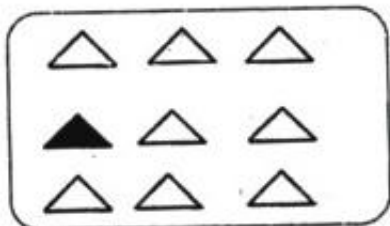




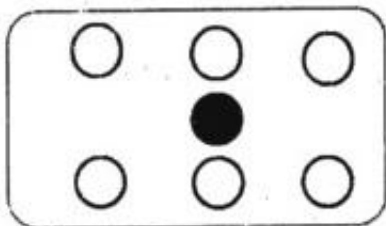
(5) Join each figure with its fraction:



$\frac{1}{5}$



$\frac{1}{7}$



$\frac{1}{9}$

Lesson 3

The fraction as a number

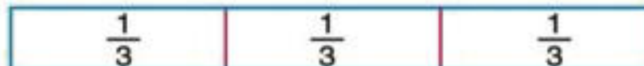
(1) With the help of the figures, complete the following:



(a) How many halves are there in the whole one? ....



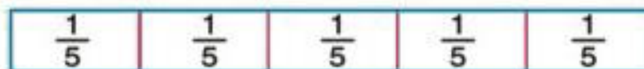
(b) How many thirds are there in the whole one? ....



(c) How many quarters are there in the whole one? ....



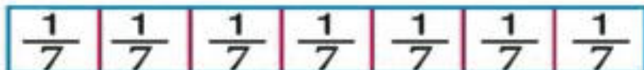
(d) How many fifths are there in the whole one? ....



(e) How many sixths are there in the whole one? ....



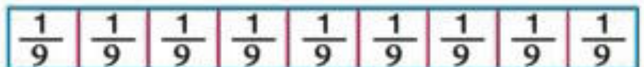
(f) How many sevenths are there in the whole one? ....



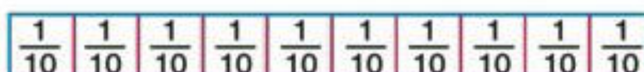
(g) How many eighths are there in the whole one? ....



(h) How many nineths are there in the whole one? ....



(i) How many tenths are there in the whole one? ....



From the previous figures, we deduce that:

$\frac{1}{2} > \frac{1}{3} > \frac{1}{4} > \frac{1}{5} > \frac{1}{6} > \frac{1}{7} > \frac{1}{8} > \frac{1}{9} > \frac{1}{10}$

(2) Complete with the help of previous figures:

(a) How many quarters make up a $\frac{1}{2}$? ....

(b) How many eighths make up a $\frac{1}{4}$? ....

(c) How many tenths make up a $\frac{1}{5}$? ....

(d) How many sixths make up a $\frac{1}{3}$? ....

(e) How many eighths make up a $\frac{1}{2}$? ....

(3) Use the opposite figure: complete using < or >

(a) $\frac{1}{2}$ ☐ $\frac{1}{3}$

(b) $\frac{1}{3}$ ☐ $\frac{1}{4}$

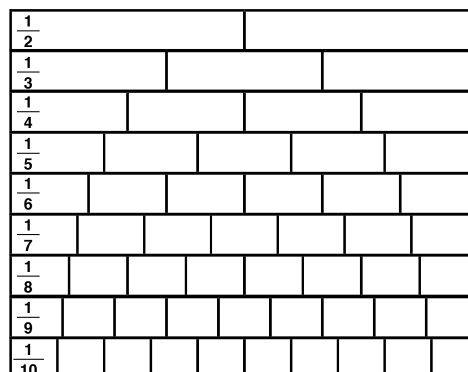
(c) $\frac{1}{4}$ ☐ $\frac{1}{2}$

(d) $\frac{1}{6}$ ☐ $\frac{1}{5}$

(e) $\frac{1}{4}$ ☐ $\frac{1}{7}$

(f) $\frac{1}{8}$ ☐ $\frac{1}{9}$

(g) $\frac{1}{5}$ ☐ $\frac{1}{10}$



(4) Circle the greater fraction:

$\frac{1}{4}$	$\frac{1}{5}$

$\frac{1}{5}$	$\frac{1}{4}$

$\frac{1}{8}$	$\frac{1}{2}$

$\frac{1}{2}$	$\frac{1}{4}$

$\frac{1}{3}$	$\frac{1}{2}$

$\frac{1}{10}$	$\frac{1}{8}$

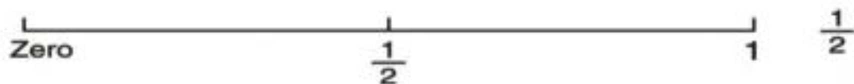
(5) Arrange from the smallest to the greatest

$\frac{1}{2}$, $\frac{1}{5}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{6}$, $\frac{1}{8}$, $\frac{1}{10}$

..........,..........,..........,..........,..........,..........,..........

(6) Represent each fraction on the opposite line as in the example:

Example:



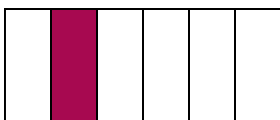




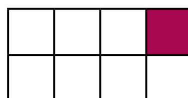


Exercises Unit 3

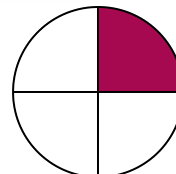
(1) Write the fraction that expresses the coloured part (in more than one way):



....
....

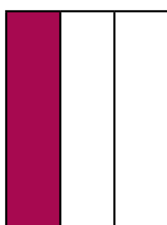


....
....

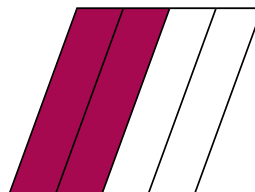


....
....

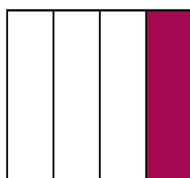
(2) Choose the fraction for each shaded part



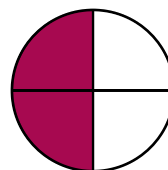
| $\frac{1}{3}$ | $\frac{2}{3}$ | $\frac{1}{2}$ |



| $\frac{1}{4}$ | $\frac{1}{3}$ | $\frac{1}{2}$ |



| $\frac{1}{3}$ | $\frac{1}{4}$ | $\frac{1}{6}$ |

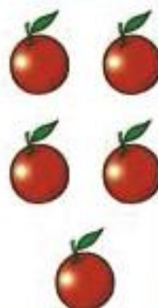


| $\frac{1}{2}$ | $\frac{1}{3}$ | $\frac{1}{4}$ |

(3) Circle according to the given fraction:

$\frac{1}{2}$ 

$\frac{1}{3}$ 

$\frac{1}{5}$ 

$\frac{1}{6}$ 

(4) Circle the smaller fraction:

$\frac{1}{2}$, $\frac{1}{3}$

$\frac{1}{5}$, $\frac{1}{4}$

$\frac{1}{7}$, $\frac{1}{6}$

$\frac{1}{10}$, $\frac{1}{12}$

(5) Represent each of the following fractions on the number line: $\frac{1}{2}$, $\frac{1}{5}$



Zero 1

Activities Unit 3

(1) Write the fraction that represents the coloured part in each figure:

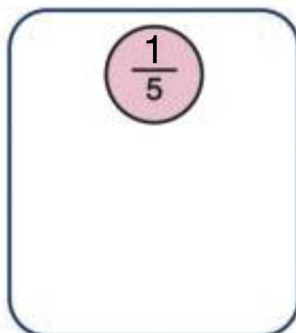


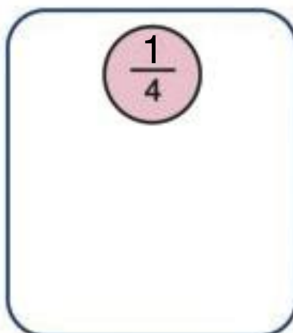


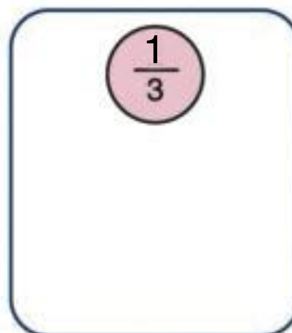


....

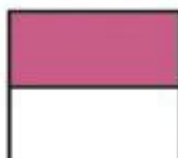
(2) Draw a shape (of your own) to express each of the following fractions:

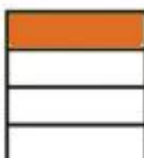






(3) Complete by writing the suitable fraction on the dots, then arrange these fractions:











....

.... < .... < .... < .... < ....

Unit 4

Measurement



Lesson 1

Hours and Minutes

Can you estimate the time needed for each of the following?

Underline the closest answer to what is right:

(a) Coming down the stairs from the second floor.
(3 minutes, 30 minutes, one hour)

(b) Eating supper.
(3 minutes, 20 minutes, 3 hours)

(c) Reading one page of a book.
(1 minute, quarter of an hour, one hour)

(d) Performing the obilgatory prayer.
(10 minutes, one hour, 5 hours)

(e) Travelling from Cairo to Assiut by train.
(half an hour, 6 hours, 12 hours)



one hour = 60 minutes



half an hour = 30 minutes



one third of an hour = 20 minutes



one quarter of an hour = 15 minutes



Five minutes

Notice that:

$\frac{1}{2}$ hour + $\frac{1}{2}$ hour = 30 minutes + 30 minutes = 60 minutes = one hour

$\frac{1}{3}$ hour + $\frac{1}{3}$ hour + $\frac{1}{3}$ hour = 20 minutes + 20 minutes + 20 minutes = 60 minutes = one hour

$\frac{1}{4}$ hour + $\frac{1}{4}$ hour + $\frac{1}{4}$ hour + $\frac{1}{4}$ hour = 15 minutes + 15 minutes + 15 minutes + 15 minutes = 60 minutes = one hour

(1) Complete:

An hour and a half =...... minutes +...... minutes =...... minutes.

Two hours =...... minutes +........minutes +........ minutes.

An hour and a quarter =...... minutes +........minutes +........ minutes.

Two hours and a half =...... minutes +........minutes +........ minutes.

An hour and 10 minutes =..... minutes +.......minutes +....... minutes.

Two hours and 50 minutes =..... minutes +.......minutes +....... minutes

75 minutes =........hour and....... minutes.

(2) Complete using < , > or =

a) $\frac{1}{2}$ of an hour ☐ 50 minutes

b) 25 minutes ☐ $\frac{1}{4}$ of an hour

c) 1 hour ☐ $\frac{1}{2}$ of an hour + 30 minutes

d) Two hours ☐ 200 minutes

e) $\frac{1}{4}$ of an hour ☐ 5 minutes + 10 minutes

f) $\frac{1}{2}$ of an hour ☐ $\frac{1}{4}$ of an hour + 15 minutes

g) one third of an hour ☐ one quarter of an hour

h) one hour and a quarter ☐ one hour and a half

i) $\frac{1}{2}$ of an hour + $\frac{1}{2}$ of an hour + $\frac{1}{2}$ of an hour ☐ 1 hour + $\frac{1}{4}$ of an hour

Lesson 2

Telling the Time

(1) Notice, then complete:



It is four o'clock

4 : 00



It is six o'clock

6 : 00



It is nine o'clock

9 : 00



....

..... : .....



....

..... : .....



....

..... : .....

(2) Write the time which the hands indicate:



....

..... : .....



....

..... : .....



....

..... : .....



....

..... : .....

(3) Notice the position of both hands, then write the time as in the example:

It is 3 o'clock	....	....	....
It is a quarter past 12	....	....	....

(4) Write the time:

It is half past 9	....	....	....
....	....	....	....

(5) Draw the hands :

 It is 4 o'clock	 It is 8 o'clock	 9 : 00	 2 : 00
 It is half past 5	 It is half past 11	 7 : 30	 1 : 30
 It is a quarter past 10	 It is a quarter pst 5	 6 : 15	 4 : 15
 It is 9 o'clock	 It is half past 7	 3 : 30	 11 : 15

Lesson 3

Measuring of Weight

Some kinds of scales:



2-double pon scale

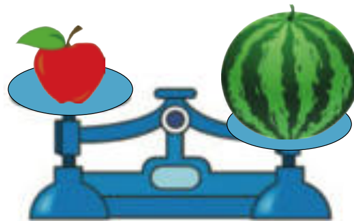


one-arm digital scale



one-arm scale with a pointer

notice that :



The watermelon is heavier than the apple

(1) Who is heavier: Maha or Uncle Said?





(2) Put (✓) under the heavier:











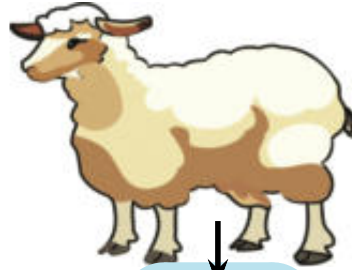






(3) Match as the example :





lighter heavier





lighter heavier





lighter heavier





lighter heavier

Lesson 4

Units of Weight



a kilogram

1 kg



half a kilogram

$\frac{1}{2}$ kg



a quarter of a kilogram

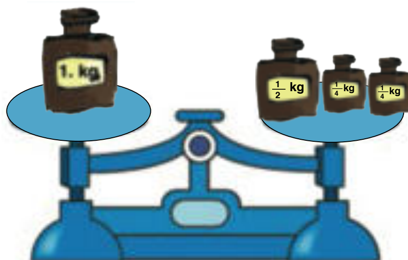
$\frac{1}{4}$ kg



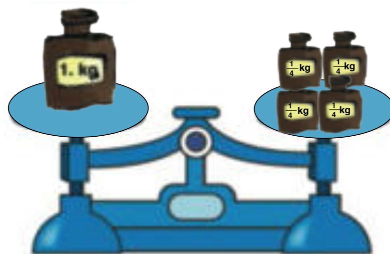
$1 \text{ kg} = \frac{1}{2} \text{ kg} + \frac{1}{2} \text{ kg}$



$\frac{1}{2} \text{ kg} = \frac{1}{4} \text{ kg} + \frac{1}{4} \text{ kg}$



$1 \text{ kg} = \frac{1}{2} \text{ kg} + \frac{1}{4} \text{ kg} + \frac{1}{4} \text{ kg}$



$1 \text{ kg} = \frac{1}{4} \text{ kg} + \frac{1}{4} \text{ kg} + \frac{1}{4} \text{ kg} + \frac{1}{4} \text{ kg}$

(1) Write the weight in each case:



The weight of the watermelons is .... kg.



The weight of the grapes is .... kg.

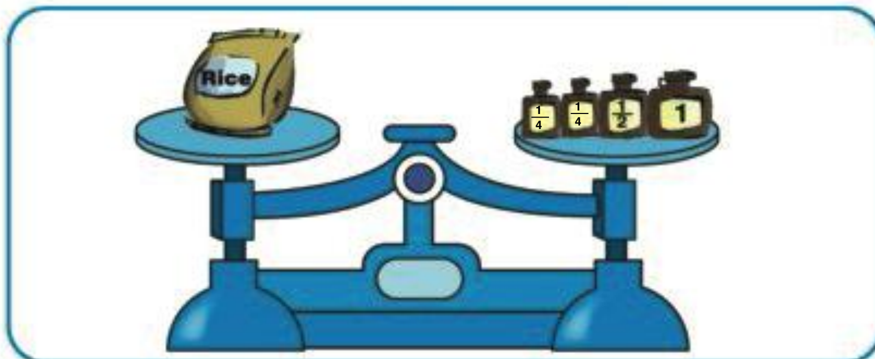
(2) Nora stood on the scale. She weighed 22 kgms. Her cat then stood on the scale with her and their weight was 25 kgms.

What is the weight of the cat alone?



(3) Which is heavier: the packet of rice or the packet of sugar?

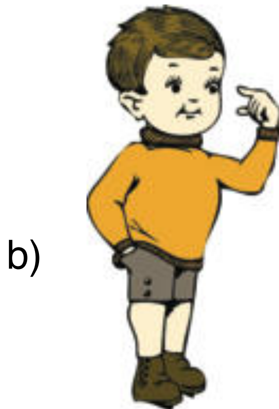
What is the difference between their weights?

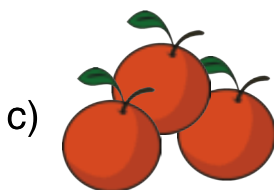




(4) Choose the suitable answer from those between the brackets :

a)  ($\frac{1}{2}$ kg, 5kg, 50kg)

b)  ($\frac{1}{4}$ kg, 1kg, 32kg)

c)  ($\frac{1}{2}$ kg, 5kg, 15kg)

(5) Complete using < , > or = :

a) 1 kg ☐ $\frac{1}{2}$ kg

b) $\frac{1}{4}$ kg ☐ $\frac{1}{2}$ kg

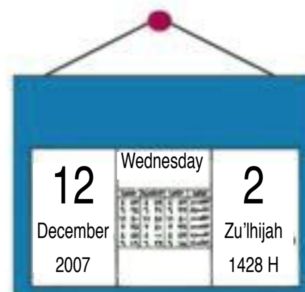
c) $\frac{1}{2}$ kg ☐ $\frac{1}{4}$ kg + $\frac{1}{2}$ kg

d) 1 kg ☐ $\frac{1}{2}$ kg + $\frac{1}{4}$ kg

e) $\frac{1}{4}$ kg + $\frac{1}{4}$ kg + $\frac{1}{2}$ kg ☐ $\frac{1}{2}$ kg + $\frac{1}{2}$ kg

Lesson 5

The A.D Calendar and the Hegira Calendar



Ahmed notice the calendar shown in the opposite figure, but he did not understand anything written on it. So, he went to his father and they had the following conversation:

Ahmed : What can we understand from this page on the calendar?

Father : We understand that the day shown on it is Wednesday the 12th of December in the year 2007 A.D which is also the 2nd of the month Zu'lhijjah in the Hegira year 1428.

Ahmed : And what is meant by A.D. and Hegira?

Father : When we say the year 2007 A.D. we mean that it comes 2007 years after the birth of Christ. Defining time in this way is called the A.D Calendar. When we say the Hegira year 1428, we mean that it comes 1428 years after the immigration of the Prophet (Mohammed) (God bless him and grant his salvation) from Meccah to Madinah. Defining time in this way is called the Hegira Calendar.

Ahmed : And Do the months of the A.D Calendar differ from those of the Hegira Calendar?

Father : Yes, the months of the A.D Calendar differ from the months of the Hegira Calendar. The A.D year is divided into 12 months as follows:

1	January	2	February	3	March	4	April	5	May	6	June
7	July	8	August	9	September	10	October	11	November	12	December

The Hegira year is also divided into 12 months as follows:

1	Muharram	2	Safar	3	Rabia first	4	Rabia second	5	Jumada I	6	Jumada second
7	Rajab	8	Shaban	9	Ramadan	10	Shawwal	11	Zu'lqida	12	Zu'lhijjah

Exercises

(1) What is the month just after Ramadan?

....

(2) If you know that Monday 30th Rajab is the last day in Rajab in the Hegira year 1428, then what is the Hegira date of Thursday of the same week?

....

(3) Answer the following questions with the help of the calendar shown in the opposite figure:



(a) Write the A.D and Hegira dates of Monday of the same week.
The A.D date: ....
The Hegira date: ....

(b) Find out the day and the Hegira date of the last day in October 2007 A.D.
day: .... Hegira date: ....

(4)

(a) What is the month that comes right after December?
(b) What is the month that comes right before Muharram?
(c) What is the month that comes right before January?
(d) What is the fifth A.D month?
(e) What is the tenth Hegira month?

(5) Complete each of the following :

(a)

The A.D year	
The order	**The month**
the first	....
....	April
the seventh	....
....	October
the Last	....

(b)

The Hegira year	
The order	**The month**
The first	....
....	Rabia First
....	Rajab
the nineth	....
....	Zu'lhjjah

Exercises
Unit 4

(1) Choose the correct answer from those between the brackets:

a) one hour =.......... minutes (50, 60, 100)

b) one hour , 5 minutes =.......... minutes (15, 65, 105)

c) 1kg = $\frac{1}{2}$ kg + ... kg ($\frac{1}{4}$, $\frac{1}{2}$,1)

d) The month that comes just after march is ....
(February , Rabia second, April)

d) The month that comes just before shaban is ....
(Rajab, Shawal, July)

(2) Complete each of the following:

a) one hour and a half = ... minutes

b) $\frac{1}{2}$ of an hour + $\frac{1}{4}$ of an hour = ... minutes

c) $\frac{1}{2}$ of an hour+ $\frac{1}{3}$ of an hour = ... minutes

d) 100 minutes = 1hour + ... minutes

e) 1kg = $\frac{1}{4}$ kg + $\frac{1}{2}$ kg + ... kg

f) The first A-D month is ....

g) The last hegira month is ....

(3) Write the time:



....

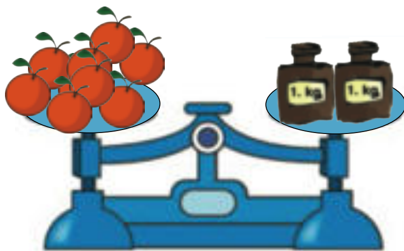


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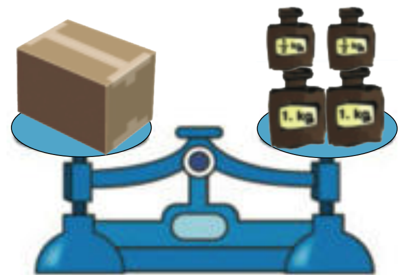


....

(4) Write the weight :



....



....

(5) Arrange the following from the smallest to the greatest

$\frac{1}{2}$ kg, 1 kg, $\frac{1}{4}$ kg, 2 kg

the order is:

.... , ... , ... , ...

Activities on Unit 4

(1) Complete:

a) One hour = ... minutes

b) Two hours = ... minutes

c) Three hours = ... minutes

d)

(Kg)	($\frac{1}{2}$ Kg)	($\frac{1}{4}$ Kg)
1 Kg	$\frac{1}{2}$ kg + $\frac{1}{2}$ kg	$\frac{1}{4}$ kg + $\frac{1}{4}$ kg + $\frac{1}{4}$ kg + $\frac{1}{4}$ kg
2 Kg		
3 Kg		

2- Write the arrival time:



a- A train leaves cairo at 8 o'clock (in the morning) and arrives at Minya 3 hours later.

The arrival time is : ....

b- A train leaves Alexandria at 11 o'clock (in the morning) and arrives Cairo 2 hours later.

The arrival time is: ....

(3) The following table shows the prayer time in one day :

Al fagr		Al zuhr		Al asr		Al maghreb		Al eshaa	
hour	minute	hour	minute	hour	minute	hour	minute	hour	minute
3	10	11	50	3	30	6	45	8	20

Draw the hands of each o'clock to show the time



Al Fagr



Al Zuhr



Al Asr



Al Maghreb



Al Eshaa



Unit 5
Statistics



Collecting and Representing Data

The class teacher announced the formation of school activity clubs in debating, first aids, boy scouts and girl scouts, music and acting. He asked the students to write their preferences.



After adding up the preferences, the number of participants in each activity was found out by making parcels shown in the figure and collecting each five signs in a parcel.

Clubs	Marks	Number of participants
debating	𝍸 ||||	9
first aids	𝍸 ||	7
boy scouts and girl scouts	𝍸 𝍸	10
Music	||||	....
acting	𝍸 |	....
did not participate or participated in another activity	𝍸 𝍸 ||||	....

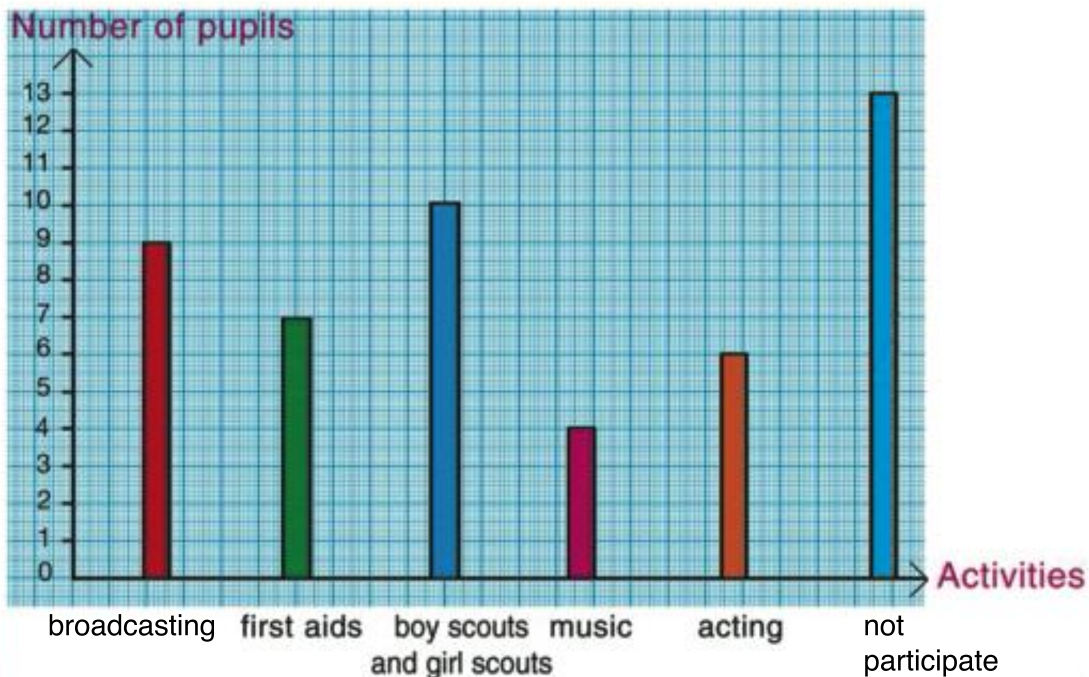
Complete the table and find out the number of pupils in the class if they were all present when writing their preferences.

Number of pupils in the class = ... + ... + ... + ... + ... + ...

= ..... pupils.

Note: Parcels are used to make counting easier.

This data can be expressed in the following way:



(1) Look at the graph and complete:

(a) The activity the pupils showed the greatest preference was............

(b) The activity the pupils showed the least preference was............

(c) Arrange the activities ascendingly according to the pupils' interests: ...., ..., ..., ..., ...

(2) If you want to be a doctor, what are the activities do you prefer?

(3) If you want to be a broadcaster, what are the activities do you prefer?

Exercises

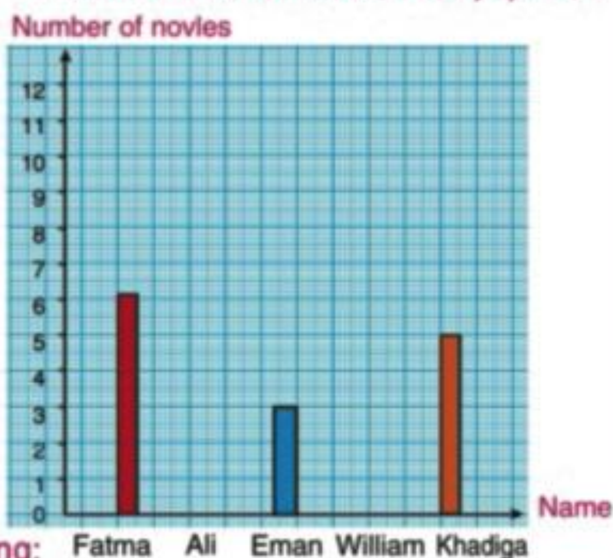
(1) Fatma, Ali, Eman, William and Khadiga have a number of novels.



(a) Complete recording the number of novels.

(b) Complete the graphical representation of the number of novels each pupil has.

Name	marks	number of novels
Fatma	𝍸 |	6
Ali	𝍸 𝍸	....
Eman	|||	....
William	𝍸 ||||	....
Khadiga	𝍸	....



(c) From the previous graph answer the following:

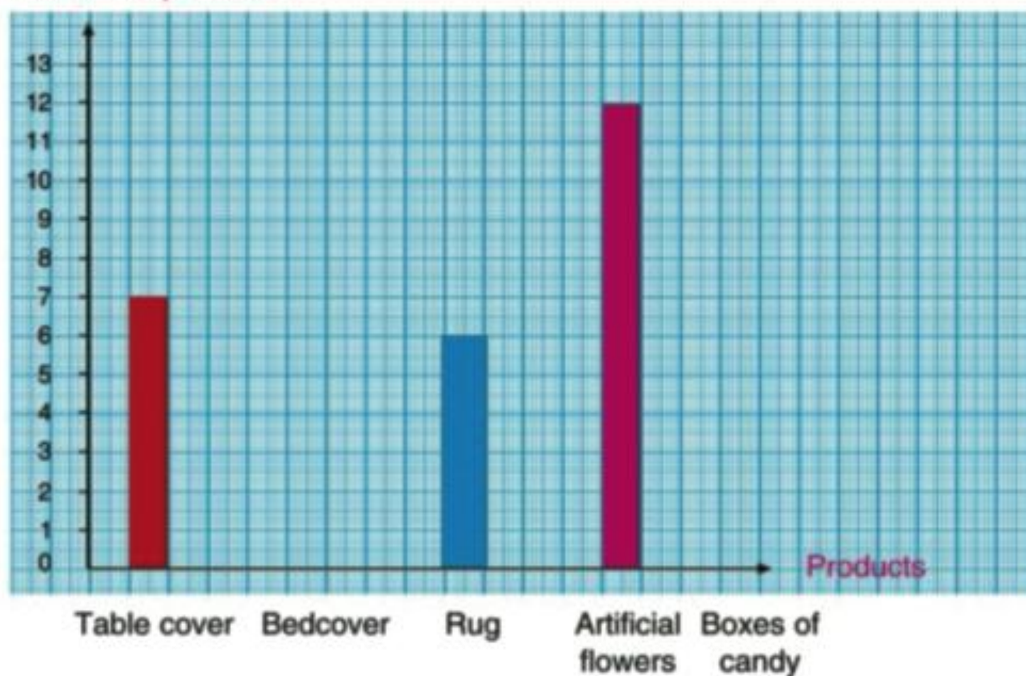
- Who has the greatest number of novels? ....
- Who has the least number of novels? ....
- Who has more novels than Fatma? ....
- Who has two novels less than Khadiga? ....
- Which two pupils have 9 novels? ....
- What is the number of novels all the students have?

(2) A number of "productive families" presented the following in an exhibition:

Products	Table cover	Bedcover	Rug	Artificial flowers	Boxes of candy
Number	7	4	6	12	8



Complete representing this data in bar-lines:



What do you know about "productive families"?

Exercises Unit 5

(1) A pupil recorded the weather conditions of every day in January 2007 in one of the cities in the following way:

Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		


sunny


cloudy


rainy


dusty

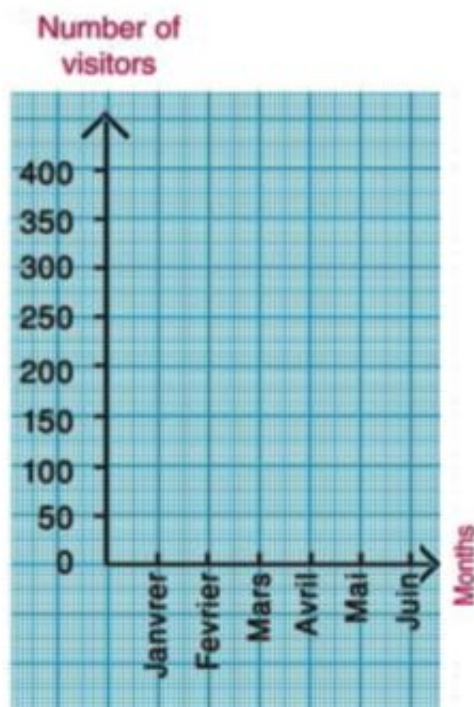
Illustrate the weather conditions during this month:

Weather condition	Marks	Number

(2) The following table shows the number of visitors to the reptile house at the zoo in Giza during the months of a certain year:

Represent the data in the table in the form of bar-lines and answer the questions

Month	Number of visitors
January	400
February	300
March	250
April	200
May	200
June	200



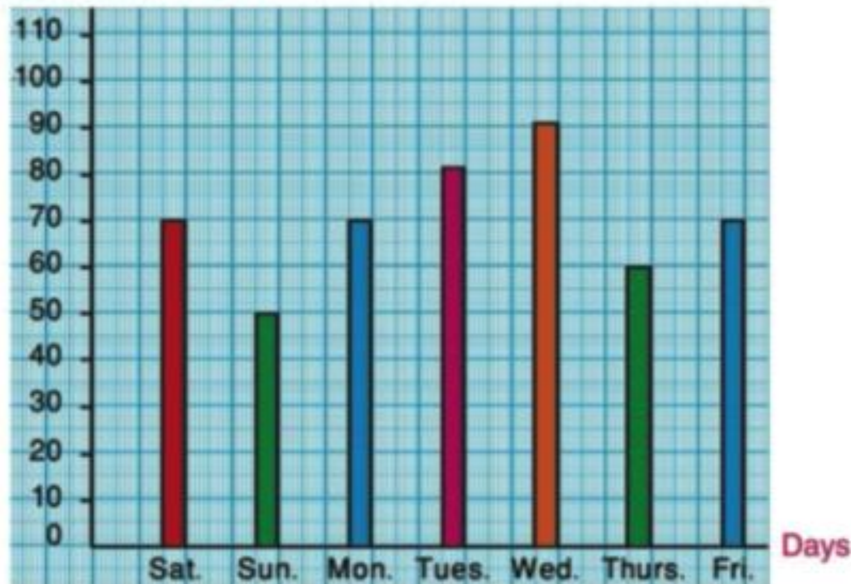
(a) In which month did the greatest number of people visit the reptile house? ....

(b) In which month did the least number of people visit the reptile house? ....

(c) What is the difference between the greatest and the least number of visitors in the months of that year? ....

Activities Unit 5

(1) The following figure represents the number of oil tankers that passed through the Suez Canal in one week:



Complete the following table with the help of the graph:

Day	Sat.	Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.
Number of oil tankers							

(2) Answer the following questions:

(a) On what day did the greatest number of oil tankers pass? ....

(b) On what day did the least number of oil tankers pass? ....

(c) What is the difference between the greatest number and least number of oil tankers that passed during this week? ....

(d) What are the names of the cities that lie on the Suez Canal? ....

(3) In December 2006, one of the newspapers reported the weather in some cities of the Arab Republic of Egypt as follows:

City	Temperature		City	Temperature	
	higher	lower		higher	lower
Cairo	21^0	10^0	Hurghada	25^0	14^0
Alexandria	20^0	12^0	Rafah	20^0	8^0
Mattrouh	20^0	11^0	St. Catherine	18^0	4^0
Aswan	26^0	12^0	Siwa	22^0	10^0
Assiut	22^0	8^0	Minya	22^0	9^0
Port Said	20^0	16^0	Fayoum	21^0	8^0
Sharm El Sheikh	24^0	17^0	Ras Sidr	23^0	11^0
Taba	20^0	5^0	Suhag	23^0	9^0
Abu Simbel	26^0	12^0	Luxor	26^0	9^0
Nueba	25^0	18^0	El-Wady El-Gadeed	26^0	6^0
Ismailia	21^0	8^0	Halayeb and Shalateen	26^0	17^0
Suez	22^0	13^0			
Areesh	19^0	7^0	Tanta	20^0	9^0
Tor	23^0	12^0	Qena	25^0	8^0

(a) What do you think the higher and the lower degrees mean?

(b) Collect the higher temperatures of the capital of your governorate of all the days of last week from the newspapers and record them in the following table.

Day	Sat.	Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.
higher temperature							

Complete:

- The highest temperature was on ....
- The lowest temperature was on ....
- The difference between the highest and lowest temperatures was .... degrees centigrade.
- What kind of clothes are suitable for this kind of week?
  .... (Heavy - Medium - Light)

Exercises on the first unit

1 Complete:

(1) 2 x 8 = ...

(2) 5 x 7 = ...

(3) 2 x 6 = ...

(4) 3 x 9 = ...

(5) 4 x 5 = ...

(6) 3 x 7 = ...

(7) .... x 9 = 45

(8) .... x 5 = 45

(9) 3 x .... = 12

(10) 30 ÷ 5 = ...

(11) 18 ÷ .... = 9

(12) .... ÷ 3 = 7

(13) .... ÷ 5 = 9

(14) 24 ÷ .... = 6

(15) .... ÷ .... = 2

2 Complete:

(1) 7+ 7 =7 x ....

(2) 9 + 9 + 9 = ... x 3

(3) 3+ 3 + 3 + 3 = 3 x ....

(4) 4 + 4 + 4 + 4 + 4 = 4 x ....

(5) 8 + 8 + 8 + 8 + 8 + 8 = ... x 8

(6) 6 + 6 + 6 = ... x ....

(7) 5 x 3 = 5 + ... + ...

(8) 4 x 3 = 2 x ....

(9) 15 ÷ 3 = 1 x ....

(10) 3 ÷ 3 = ...

(11) 15 ÷ 5 = ...

(12) 2 x .... = 3 x 6

3 Choose the correct answer:

(1) $2 \times 6 =$	(12 , 24 , 18)
(2) $36 \div 4 =$	(7 , 8 , 9)
(3) .... $\times 7 = 14$	(2 , 4 , 6)
(4) $5 + 5 + 5 + 5 =$	(5 x 5 , 5 x 6 , 5 x 4)
(5) $6 + 6 + 6 + 6 =$	(4 x 4 , 4 x 5 , 4 x 6)
(6) $4 + 4 + 4 + 4 + 4 =$	(4 x 4 , 4 x 5 , 4 x 6)
(7) $2 \div 1 =$	(0 , 1 , 2)
(8) $4 \times$ .... $= 28$	(6 , 5 , 7)
(9) $3 \times$ .... $= 21$	(4 , 6 , 7)
(10) .... $\div 2 = 6$	(2 , 6 , 12)
(11) $5 \times 2 = 2 \times$	(2 , 5 , 10)
(12) $4 \times 6 = 3 \times$	(6 , 8 , 24)
(13) $1 \times 3 = 15 \div$	(3 , 5 , 15)
(14) $24 \div 4 = 2 \times$	(2 , 3 , 6)
(15) $4 \times 2 = 1 \times$	(2 , 4 , 8)

4 Compare by using (< or > or =):

(1) 3 x 6 ☐ 4 x 5

(2) 3 x 7 ☐ 29

(3) 5 x 6 ☐ 5 x 4

(4) 54 ☐ 5 x 9

(5) 2 x 9 ☐ 3 x 6

(6) 4 x 8 ☐ 3 x 9

(7) 7+ 7 + 7 ☐ 4 x 7

(8) 2 + 2 + 2 + 2 ☐ 4 x 2

(9) 30 ÷ 5 ☐ 6 + 6 + 6 + 6

(10) 3+15 ☐ 3 x 6

(11) 18 ÷ 2 ☐ 3 x 3

(12) 4 ÷ 4 ☐ 3 ÷ 3

(13 1 x 4 ☐ 4 ÷ 4

(14) 27 ÷ 3 ☐ 27 ÷ 9

(15) 4 ÷ 2 ☐ 4 x 2

5 Complete in the same pattern:

(1) 2 ,4 , 6, ... , ... , ... , ...

(2) 3,............ , 9 , 12 .... , ... , ...

(3) 27, 24, 21, ... , ... , ... , ...

(4) 45, 40 , 35, ... , ... , ... , ...

(5) 18 , 16 ,14 .... , ... , ... , ...

(6) 36 , 32 , 28 , ... , ... , ... , ...

(7) 9, 12, 15, ... , ... , ... , ...

6 Match the cards that give the same number:

a)

5 x 2	8 + 8	8 x 2	2 x 3
6	10	2 x 8	
3 + 3	5 + 5	16	

b)

3 x 7	3 x 3	2 x 9
9	18	21
45 ÷ 5	19 + 2	9 + 9

c)

15 ÷ 3	8 + 8	2 x 8
5	5 + 5	10
2 x 5	16	1 x 5

7 Find the result:

(1) 3 x 7 = ...

(2) 5 x 8 = ...

(3) 4 x 6 = ...

(4) 2 x 8 = ...

(5) 3 x 9 = ...

(6) 27 ÷ 3 = ...

(7) 4 x 8 = ...

(8) 16 ÷ 4 = ...

(9) 2 x 5 = ...

(10) 2 x 9 = 3 x ....

(11) 1 x 9 = 3 x ....

(12) 1 x 8 = 2 x ....

(13) 4 x 7 = ...

(14) 0 x 9 = ...

(15) 3 x 8 = 4 x ....

(16) 12 ÷ 4 = ...

(17) 40 ÷ 5 = ...

(18) 6 ÷ 6 = ...

(19) 15 ÷ 5 = ...

(20) 24 ÷ 3 = ...

8 Find the result:

(1) $9 \times 3 =$ …………	(2) $5 \times 5 =$ …………	(3) $7 \times 5 =$ …………	(4) $7 \times 3 =$ …………
(5) $3 \times 1 =$ …………	(6) $6 \times 2 =$ …………	(7) $4 \times 4 =$ …………	(8) $8 \times 2 =$ …………
(9) $6 \times 5 =$ …………	(10) $9 \times 4 =$ …………	(11) $7 \times 4 =$ …………	(12) $9 \times 5 =$ …………
(13) $2 \overline{)18}$	(14) $5 \overline{)20}$	(15) $4 \overline{)24}$	(16) $3 \overline{)15}$
(17) $5 \overline{)35}$	(18) $3 \overline{)21}$	(19) $4 \overline{)8}$	(20) $2 \overline{)12}$

9 Answer the following:

(1) Wael bought 4 kg. of banana for 4 pounds each. How much money did he pay?

He paid = ... x .... = ... pounds.

(2) Areeg's father bought 5 books for him, the price of each book is 8 pounds. What is the price of all books?

The price of books = ... x .... = ... pounds.

(3) Asmaa plays two hours every day. How many hours does she spend in playing in 5 days?

The number of hours of playing = ... x .... = ... hours

(4) If the price of nine tickets of a garden is 27 pounds. What is the price of one ticket?

The price of one ticket = ... ÷ .... = ... pounds.

(5) Nouran saves 6 pounds every month. How much money does Nouran save during 8 months?

What Nouran saves = ... x .... = ... pounds

(6) Mohamed bought 4 books for 24 pounds. What is the price of each book?

The price of each book = ... ÷ .... = ... pounds.

(7) We know that the cat has 4 legs, how many leg do 9 cats have?

The number of legs of the cats = ... x .... = ... leg.

(8) We know that the swallow has two wings, how many wings do 5 sallows have ?

The number of wings = ... x .... = ... wings.

(9) If your teeth have 4 eyetooth, how many eyetooth do 6 pupils have?

The number of eyetooth = ... x .... = ... eyetooth.

(10) If Osama drinks 3 glasses of milk every day. How many glasses does Osama dirink in 6 days?

The number of milk's glasses = ... x .... = ... glasses.

(11) If the price of 5 sandwiches of chicken is 40 pounds. What is price of one sandwich ?

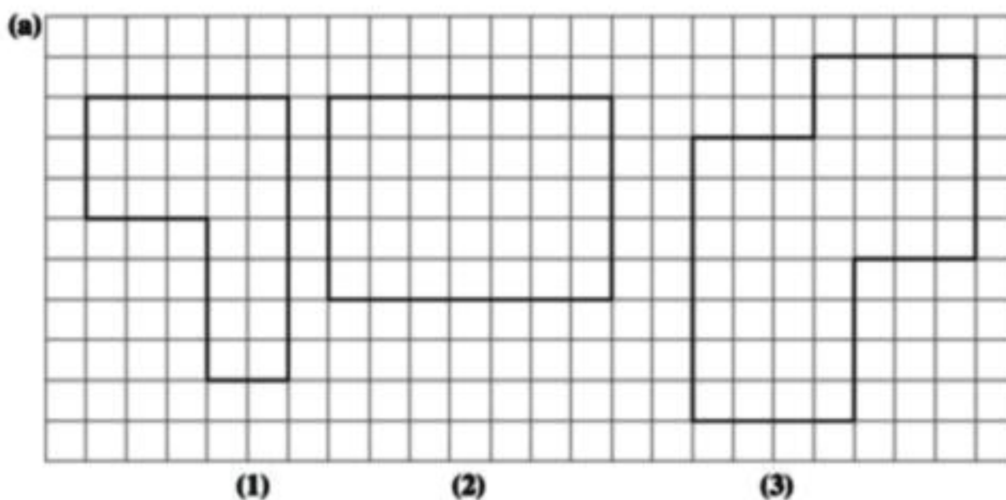
The price of one sandwich = ... ÷ .... = ... pounds.

(12) Eman saves 7 pounds every week. How much money does Eman save in 5 weeks?

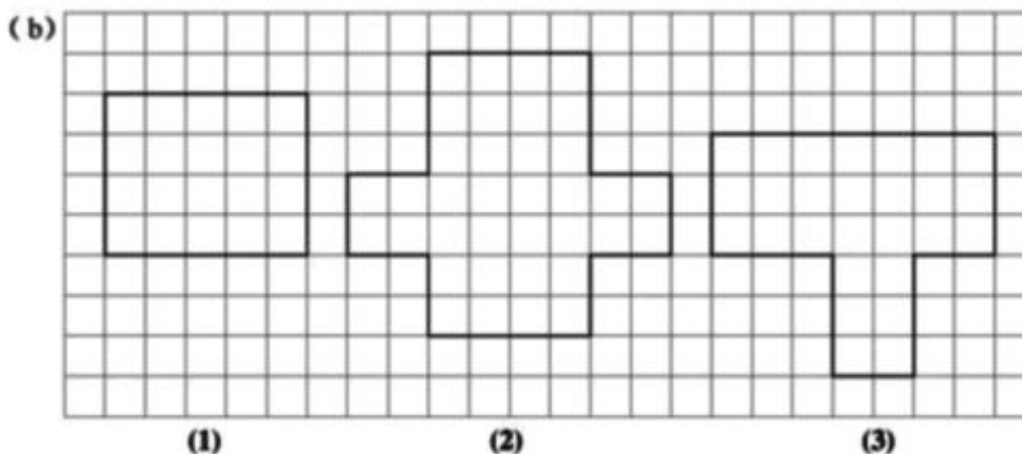
What Eaman saves = ... x .... = ... pounds

Exercises on unit 2

1 Calculate the perimeter of each shape of the following shapes. Take the side length of the small square is a length unit:

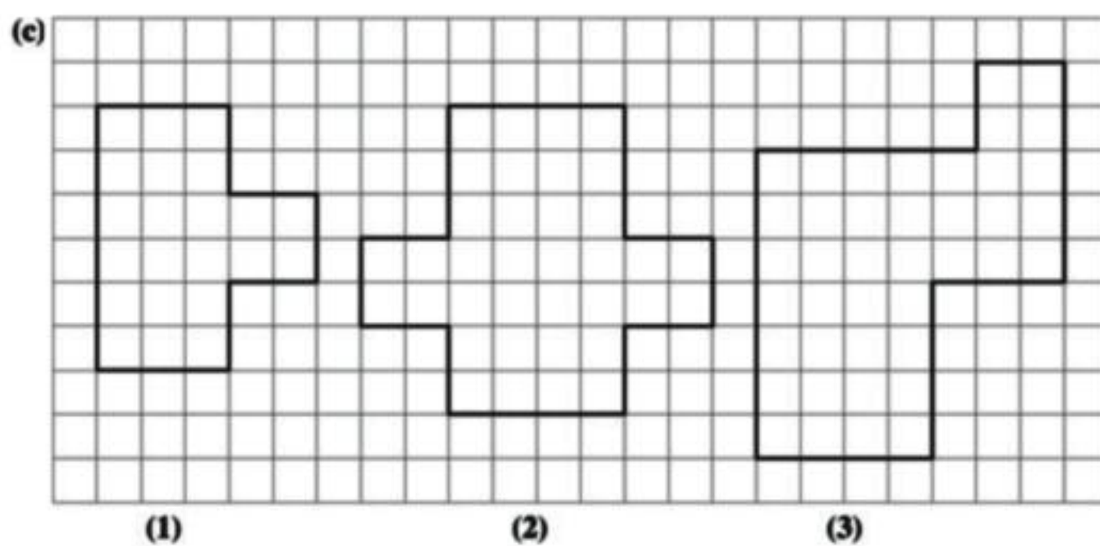


Figure's number	(1)	(2)	(3)
its perimeter			



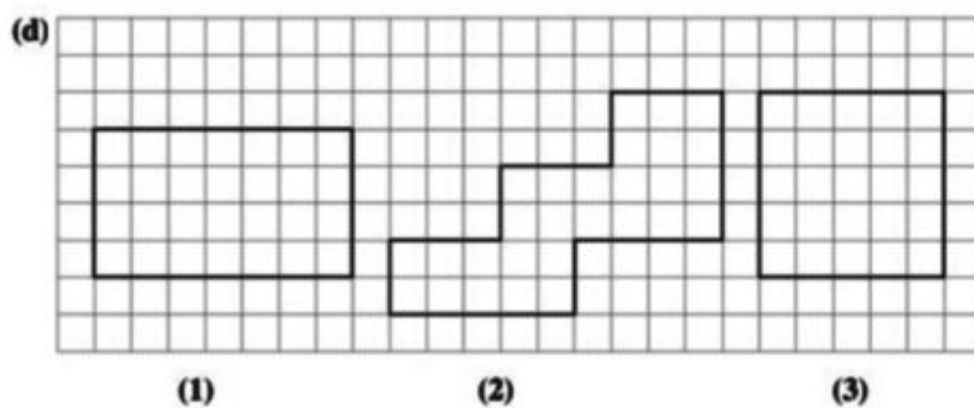
Figure's number	(1)	(2)	(3)
its perimeter			

(c)



Figure's number	(1)	(2)	(3)
its perimeter			

(d)



Figure's number	(1)	(2)	(3)
its perimeter			

2 Complete in the same pattern:

1.  ....

The pattern ....

2.  ....

The pattern ....

3.  ....

The pattern ....

4.  ....

The pattern ....

5.  ....

The pattern ....

6.  ....

The pattern ....

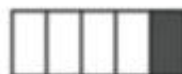
Exercises on unit 3

1 Write the fraction represented by the coloured part:

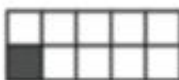

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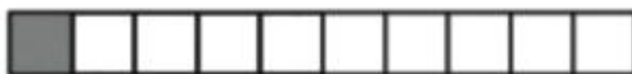

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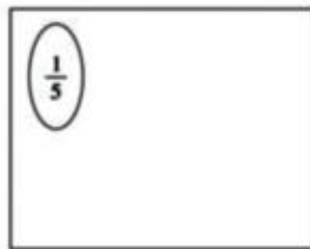

....


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2 Draw a shape (of your own) to express each of the following fraction:



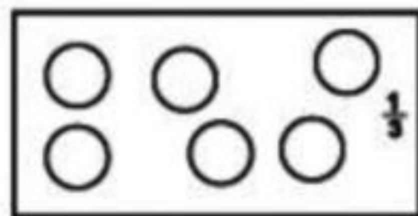


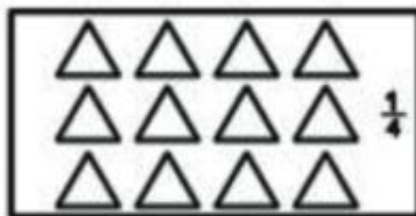


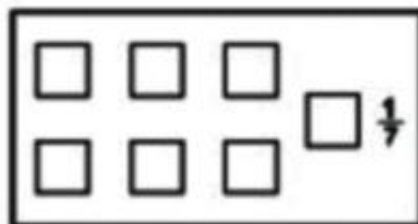


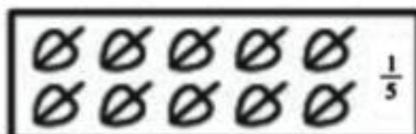
3 Surround due to the given fraction:

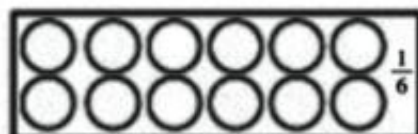






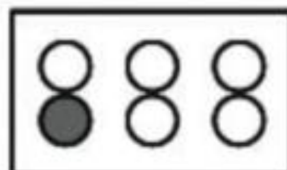






4 Match each figure with the fraction that represents it:

$\frac{1}{5}$



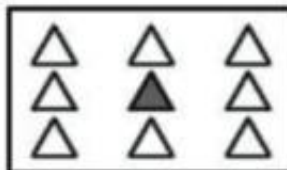
$\frac{1}{6}$



$\frac{1}{9}$

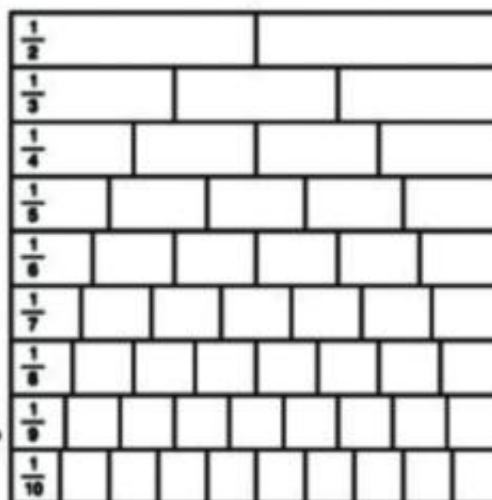


$\frac{1}{8}$



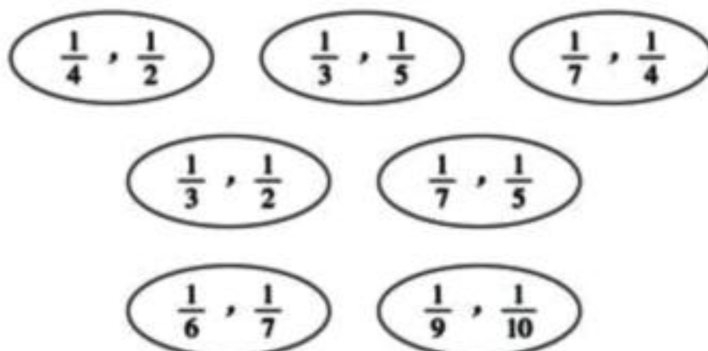
5 Using the following figure, answer the following:

1. How many halves are there in one ?
2. How many sixths are there in one ?
3. How many quarters are there in one ?
4. How many Fifths are there in one ?
5. How many ninths are there in one ?
6. How many tenths are there in one ?
7. How many sevenths are there in one ?
8. How many quarters are there in one half ?
9. How many eighth are there in one quarter ?
10. How many sixth are there in one third ?

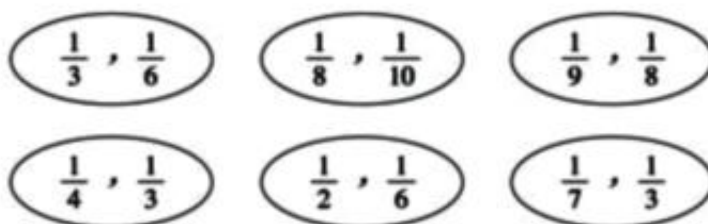


6

a) Ring the smaller fraction



b) Ring the greater fraction



Exercises on unit 4

1 Complete:

(1) The hour = ... minutes

(2) Half of an hour = ... minutes

(3) $\frac{1}{3}$ of an hour = ... minutes

(4) $\frac{1}{4}$ of an hour = ... minutes

(5) 30 minutes = ... hour

(6) 20 minutes = ... hour

(7) 15 minutes = ... hour

(8) One hour and a quarter = ... minutes + ... minutes = ... minutes

(9) One hour and a third = ... minutes + ... minutes = ... minutes

(10) 2 hours = ... minutes

(11) One hour and 5 minutes = ... minutes

(12) Two hours and a half = ... minutes

(13) One hour and ten minutes = ... minutes

(14) One hour and 35 minutes = ... minutes

(15) One hour and 25 minutes = ... minutes

(16) One hour and 40 minutes = ... minutes

(17) One hour and 50 minutes = ... minutes

(18) 65 minutes = ... hour and .... minutes

(19) 90 minutes = ... hour and .... minutes

(20) 85 minutes = ... hour and .... minutes

(21) 75 minutes = ... hour and .... minutes

2 Notice the positions of the two hands, then write the reading the watch






....

3 Notice the position of each the two hands then write the reading of the watch.



It is a quarter past eleven

...... : ......



It is two O'clock

...... : ......



It is half past twelve

...... : ......



It is a quarter past seven

...... : ......

4 Complete:

(a) 1 kg $= \frac{1}{2}$ kg + ... kg

(b) $\frac{1}{2}$ kg $= \frac{1}{4}$ kg + ... kg

(c) 1 kg $= \frac{1}{2}$ kg $+ \frac{1}{4}$ kg + ... kg

(d) 1 kg $= \frac{1}{4}$ kg + ... kg $+ \frac{1}{4}$ kg + ... kg

(e) $\frac{1}{2}$ kg $+ \frac{1}{2}$ kg = ... kg

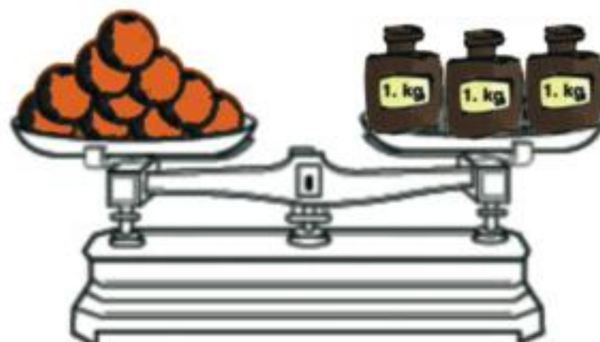
(f) $\frac{1}{4}$ kg $+ \frac{1}{4}$ kg = ... kg

(g) $\frac{1}{2}$ kg $+ \frac{1}{4}$ kg $+ \frac{1}{4}$ kg = ... kg

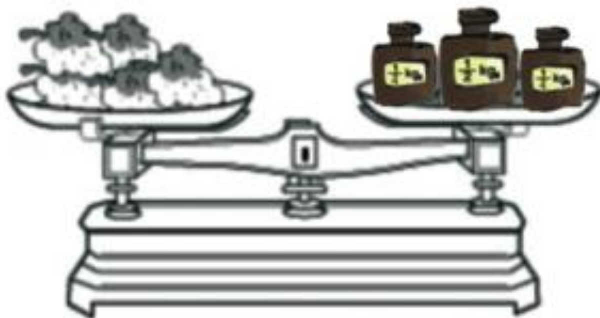
5 Write the weight in each case:

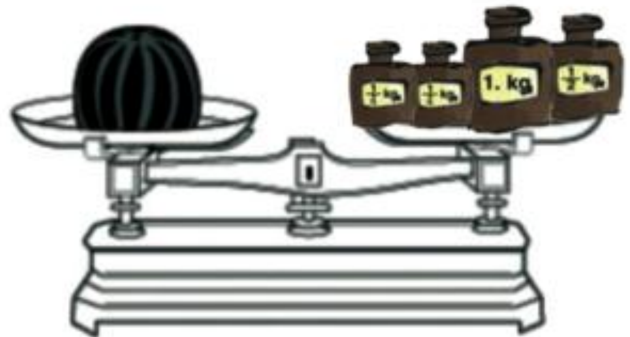


The weight = ... kg of Sugar



The weight of oranges = ... kg

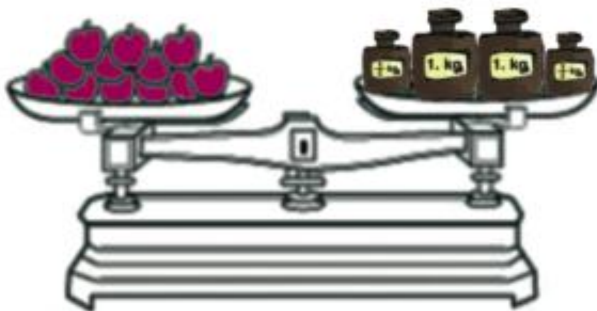


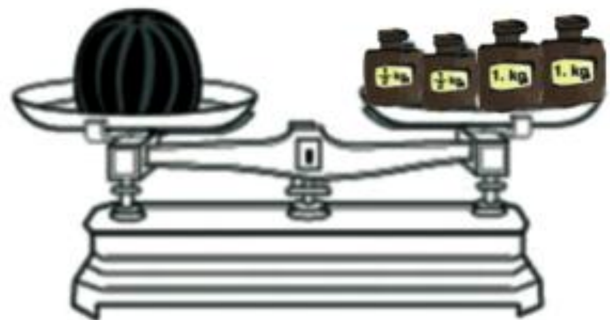


The weight = ... kg

The weight of the watermelon = ... kg

Which is heavier? the watermelon or the apples?





6 Complete:

- The A.D calender year = ... months.
- The Hgria calender year = ... months.
- The month that comes just after februariy is ....
- The month that comes just before Ramad'an is ....
- The month that comes just after December is ....
- The month that comes just before muharram is ....
- The month that comes just after April is ....
- The sixth month in A.D calender is ....
- The nineth month in the Hgria calender year is ....

Exercises on unit 5

1 In a school, the number of participated teams in the following activities (hand ball, football, basketball, volleyball, tennis) is as shown.:

Activrty	Marks	The number of participants
football	## ## ///	
tennis	## ///	
basketball	## ////	
hand ball	## ##	
volley ball	## //	

Complete the table, then answer:

a. What is the activity of least number of participants.

b. What is the activity of the greatest number of participants ?

2 From the following graph complete:

(a) Who has the greatest saving ?

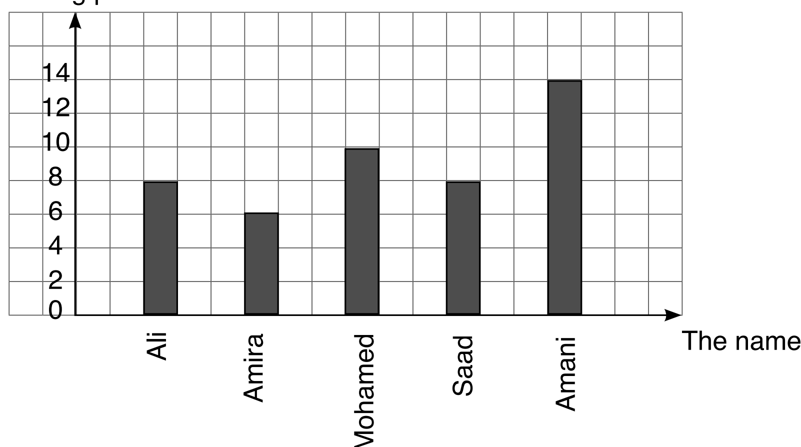
(b) Who has the minimum saving.

(c) The saving are equal between .... and ....

(d) The persons are less than mohamed in savings are .... , ... , ...

(e) Find the difference between the greatest savings and the smallest savings = ... − ....

= .... pounds.

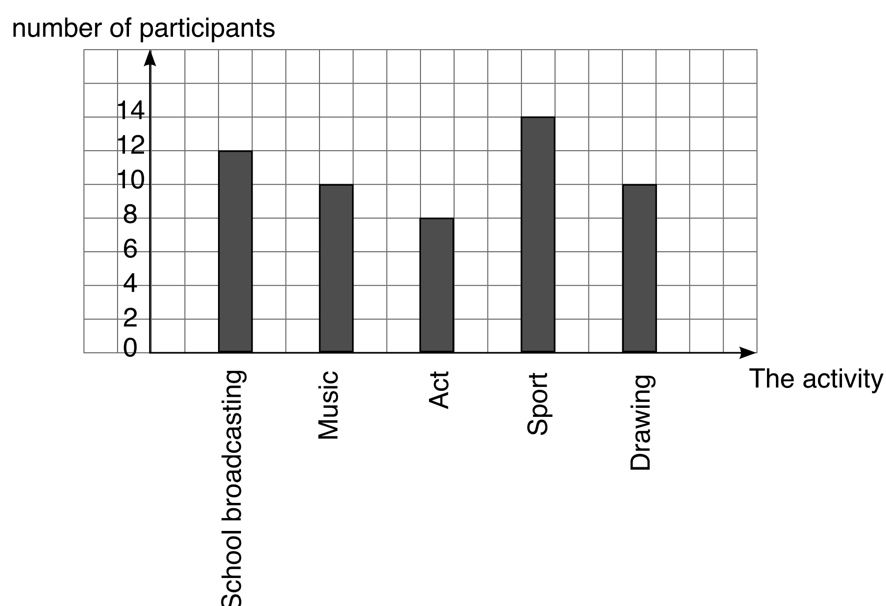


3 The following table shows the number of pupils participating in some school activities:

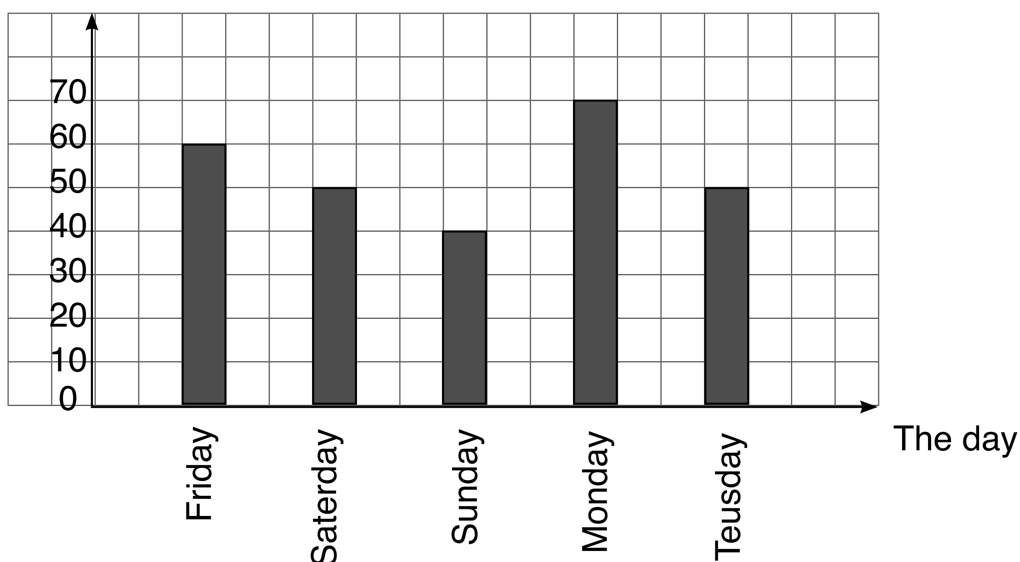
The activity	Tallys (marks)	number of participants
School broadcasting	## ## //	
Music	##	
Act	////	
sport	## ////	
Drawing	## ##	

(a) Complete the table.

(b) Complete the representation graph of the number of participants.



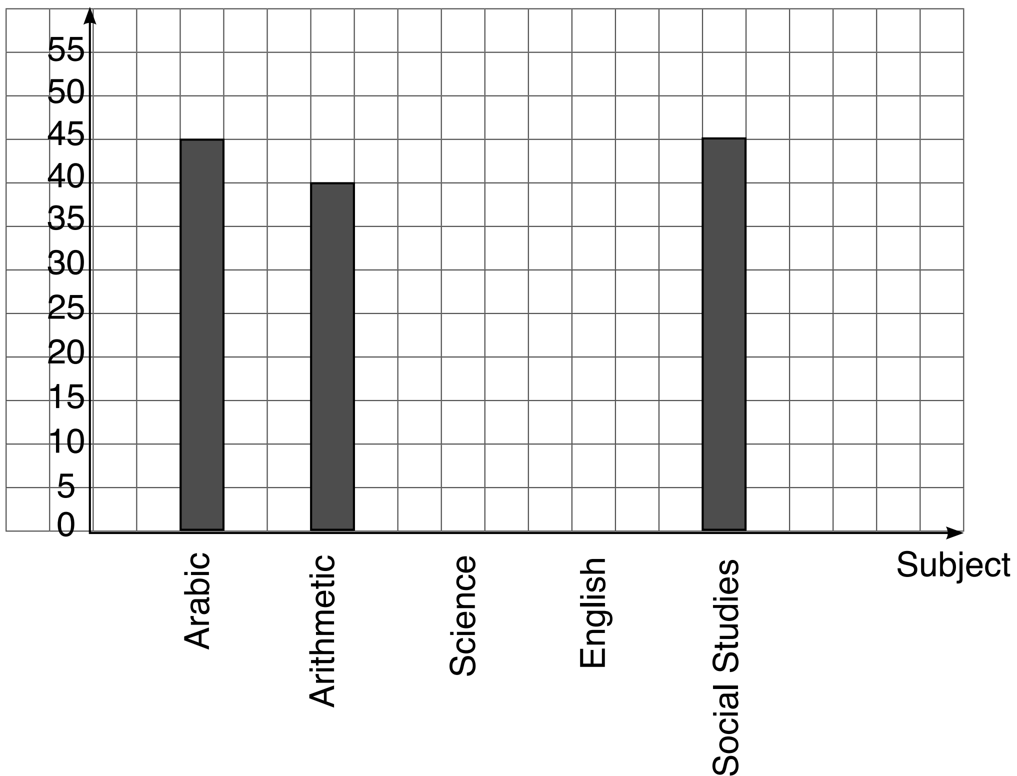
4 The following graph represents the number of visitors to the zoo within 5 days in a week:



The day	Friday	Saturday	Sunday	Monday	Tuesday
number of vcsitors	....	....	....	....	....

Complete the previous table using the graph.

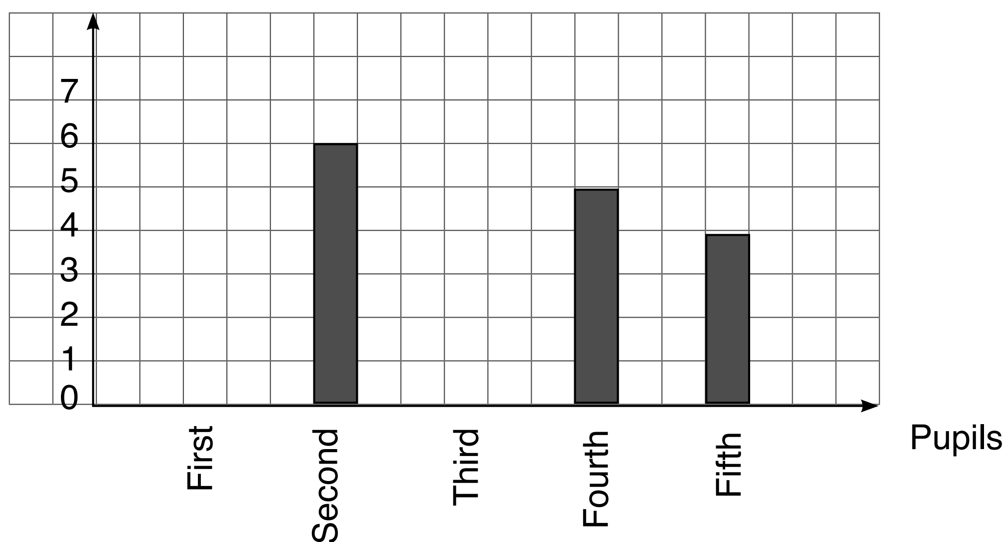
5 The following table shows the number of the pupils who succeeded in the school subjects in a class of fourth grade primary:



Subject	Arabic	Arithmetic	Science	English	social studies
number of pupils	45	40	30	50	45

Complete the representing of data by columns.

6 The following table shows the number of hours that fire pupils spend in studying in a day:



Pupils	First	Second	Third	Fourth	Fifth
number of hours	4	6	7	5	4

Complete the representation of these data by columns.

Model test 1

Question (1):
Choose the correct answer from those between the brackets:

(a) 0 x 5 = ... (0 , 1 , 5)

(b) In the whole one , there are .... quarters (2, 3, 4)

(c) The month comes just after Shaban is

(Rajab , Ramadan , September)

(d) The third of an hour = ... minutes (15 , 20 , 30)

(e) The fraction that represents the shaded part is .... ($\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$)



(f) An hour = ... minutes (50 , 60 , 100)

Question (2):
Complete :

(a) 4 + 4 + 4 = 4 x ....

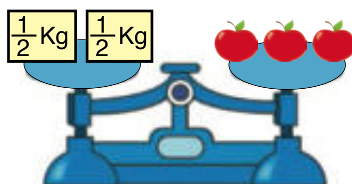
(b) 3 x .... = 21

(c) 4 x 5 = 5 x ....

(d) △ ○ □ △ ○ □ △ ○ □ ....

(in the same pattern.)

(e) The weight of the apples = ... Kg



(f) 8 ÷ .... = 2

Question (3):

Complete using (< , > , or =)

(a) $7 \div 1$ ☐ 1×7

(b) 2×6 ☐ 3×4

(c) $20 \div 4$ ☐ $20 \div 5$

(d) 1 kg ☐ $\frac{1}{2}$ kg + $\frac{1}{4}$ kg

(e) 5×8 ☐ $5 + 8$

(f) Number of months of A.D year ☐ Number of months of Hegira year

Question (4)

(a) Notice the position of the hands, then write the time:

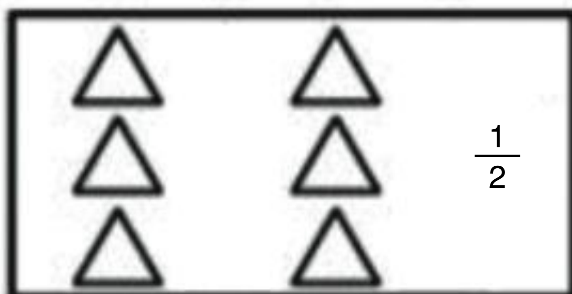


....



....

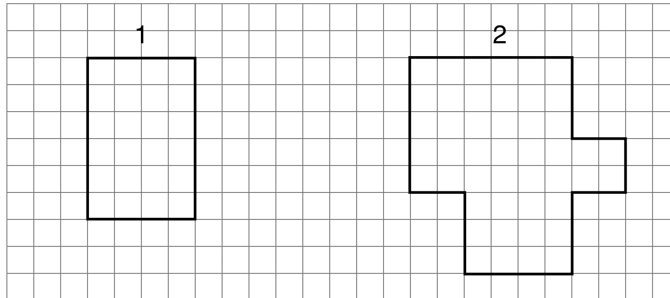
(b) Circle according to the given fraction:





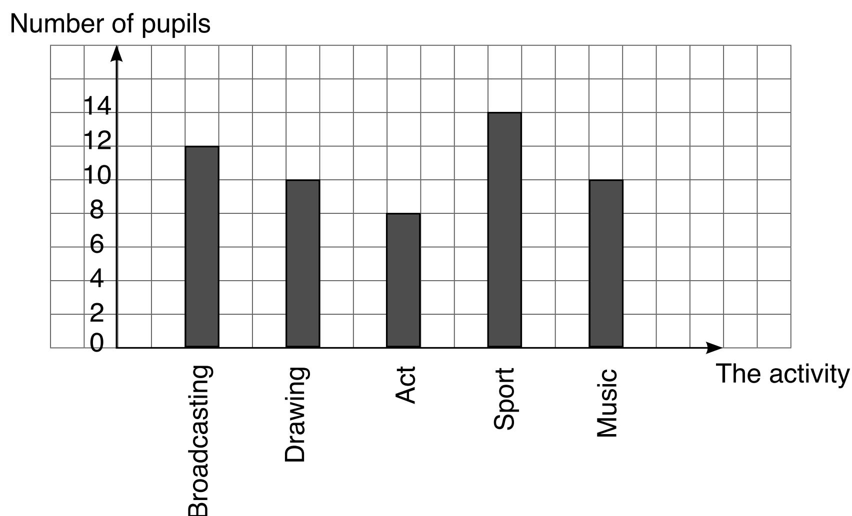
Question (5)

(a) Calculate the perimeter of each shape of the following shapes taking the side length of the small square as length unit.



(1) Perimeter = ... (2) Perimeter ....

(b) The following graph represents the number of pupils participating in 5 school activities. From the graph complete the table .



School activity	Broadcasting	Drawing	Act	Sport	Music
Number of pupils					

Model test 2

Question (1):

Choose the correct answer from those between the brackets :

(a) 5 x 7 = ... (12, 35, 75)

(b) Half of an hour = ... minutes (30 , 50 , 60)

(c) 4 ÷ 1 = ... (1, 2, 4)

(d) The month comes just after January is ....

(February , December , Safar)

(e) 2 x 8 = 4 x .... (2, 4, 16)

(f) 3 x .... = 3 (0, 1, 3)

Question (2):

Complete each of the following :

(a) 3 + 3 = 3 x ....

(b) 15 ÷ .... = 5

(c) 3 x .... = 27

(d) 2 x 5 = 5 + ...

(e) 1 kg = $\frac{1}{2}$ kg + ... kg

(f) The number of months of the Hegira year = ...

Question (3) :

Complete using (< , > or =)

(a) $\frac{1}{2}$ ☐ $\frac{1}{4}$

(b) 12 ÷ 3 ☐ 2 x 6

(c) 100 minutes ☐ one hour

(d) 15 month ☐ A.D year

(e) $\frac{1}{2}$ kg = ☐ $\frac{1}{4}$ kg + $\frac{1}{4}$ kg

(f) 1 + 1 + 1 + 1 ☐ 4 x 1

Question (4)

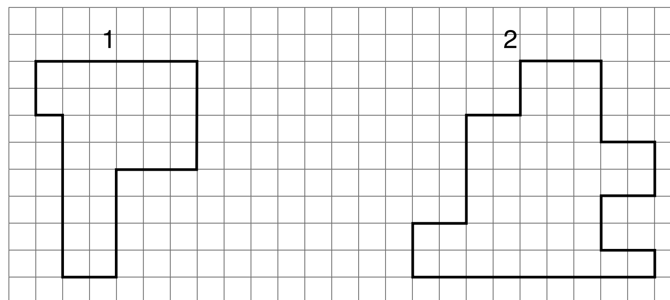
(a) Write the time :





....

(b) Calculate the perimeter of each of the following shapes taking the side length of the small square as a length unit.



fig(1) : its perimeter = ... length unit

fig(2) : its perimeter = ... length unit

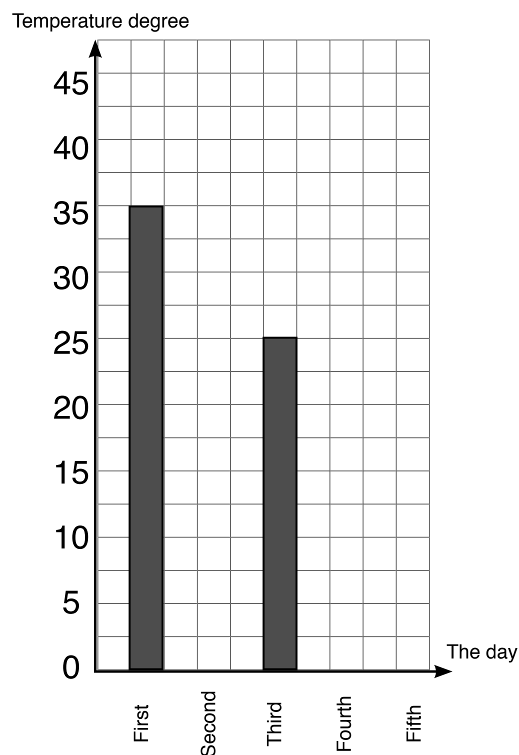
Question (5):

(a) Mona bought 5 metres of cloth for 9 pounds for each metre. How much money did Mona pay?

Mona paid = ... x .... = ... pounds

(b) The following table shows the temperature's degree (The maximum) in Cairo within 5 days.

The day	First	Second	Third	Fourth	Fifth
Temperature degree	35	30	25	30	20



Complete the representation of these data by columns then answer the following questions.

(a) What is the day of highest degree ?

(b) What are the two days in which the temperature degrees are the same ?

Model test 3

Question (1):
Choose the correct answer from those between the brackets:

(a) 4 + 4 + 4 = ... (4 + 3 , 4 x 3 , 4 4 4)

(b) 3 x 8 = ... (11, 16, 24)

(c) 21 ÷ 3 = ... (4 , 7 , 18)

(d) $\frac{1}{4}$ (in letters) = ... (third , quarter , half)

(e) Half of an hour = ... minutes (15 , 20, 30)

(f) 1 kg = $\frac{1}{2}$ kg + ... kg ($\frac{1}{4}$, $\frac{1}{2}$, 1)

Question (2):
Complete each of the following :

(a) 4 x .... = 32

(b) .... ÷ 5 = 5

(c) 3 x 4 = 4 x ....

(d) 1 x 8 = ... x 4

(e) 18 ÷ 3 = 24 ÷ ....

(f) 50 minutes + ... minutes = an hour

Question (3):
Complete using (< , > or =)

(a) 4 x 7 ☐ 4 x 8

(b) 0 ÷ ☐ 30 ÷ 5

(c) 5 x 0 ☐ 2 x 0

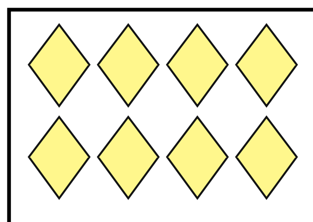
(d) Third of an hour ☐ 30 minutes

(e) 1 kg ☐ $\frac{1}{2}$ kg + $\frac{1}{2}$ kg

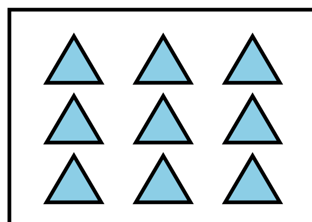
(f) The number of months in the Hegira year ☐ 11 months

Question (4):

(a) Circle according to the given fraction :



$\frac{1}{2}$



$\frac{1}{3}$

(b) Write the time:



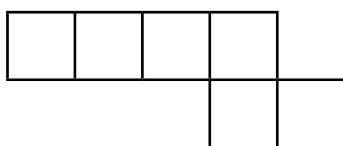
....



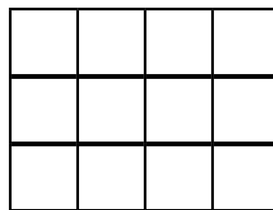
....

Question (5):

(a) Find the perimeter of each of the following:



The perimeter
= .... length unit



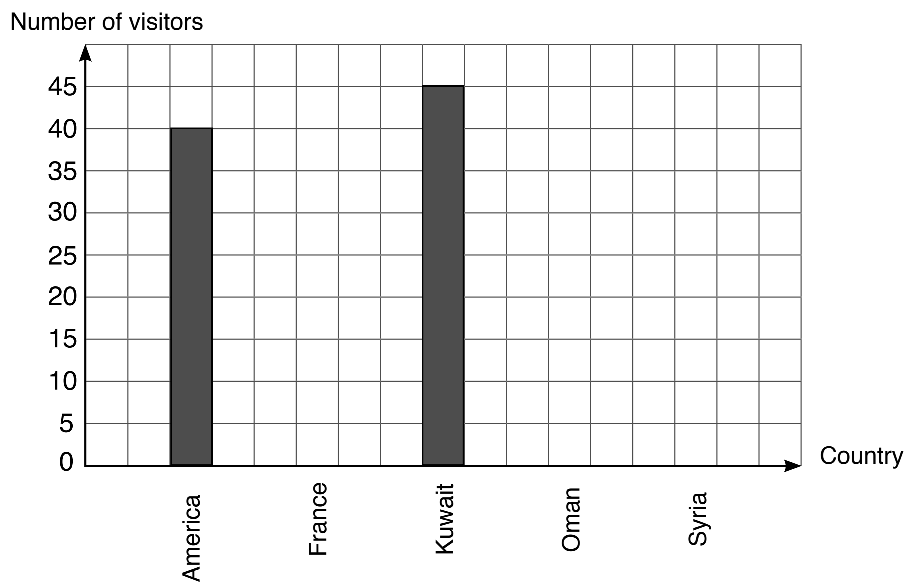
The perimeter
= .... length unit

(b) The following table shows the number of visitors to the pyramids from five different countries.

The country	America	France	Kuwait	Oman	Syria
number of visitors	40	30	45	25	55

Complete by representing these data by column then answer:

(a) What is the country having the greatest number of visitors ?
(b) What is the country having the least number of visitors?



Model test 4

Question (1):

Choose the correct answer from those between the brackets:

(a) One hour and half = ... minutes (30 , 60, 90)

(b) 3 x 6 = 2 x .... (9, 8, 6)

(c) The reading of the watch is ....

(9 o'clock, 12 o'clock , a quarter past 9)

(d) 12 ÷ 2 = ... (3 , 5 , 6)

(e) $\frac{1}{2}$ kg = $\frac{1}{4}$ kg + ... kg ($\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$)

(f) The seventh month of the Hegira year is ....

(Rajab, Shaban , Ramadan)

Question (2):

Complete :

(a) The fraction which represents the shaded part of ▮▯ is ....

(b) 1 kg = ... kg + $\frac{1}{2}$ kg

(c) 4 x 5 = 5 x ....

(d) .... ÷ 5 = 6

(e) 3 x .... = 8 + 10

(f) The month that just before May is ....

Question (3):
Complete using (< , > or =):

(a) 4 x 1 ☐ 2 x 2

(b) 9 ÷ 3 ☐ 5 + 5 + 5

(c) One hour and a quarter ☐ 50 minutes

(d) $\frac{1}{5}$ ☐ $\frac{1}{3}$

(e) $\frac{1}{2}$ kg ☐ $\frac{1}{4}$ kg

(f) ☐

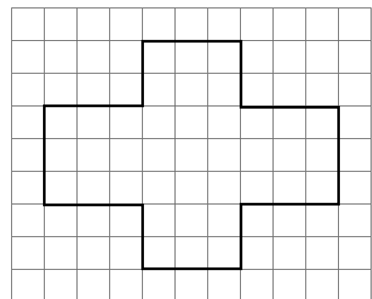
Question (4):

(a) Complete in the same pattern :

3 , ..., 9, 12, ..., ..., ...

(b) Calculate the perimeter of the following shape, consider the side length of the small square as a length unit:

The perimeter = ... length unit



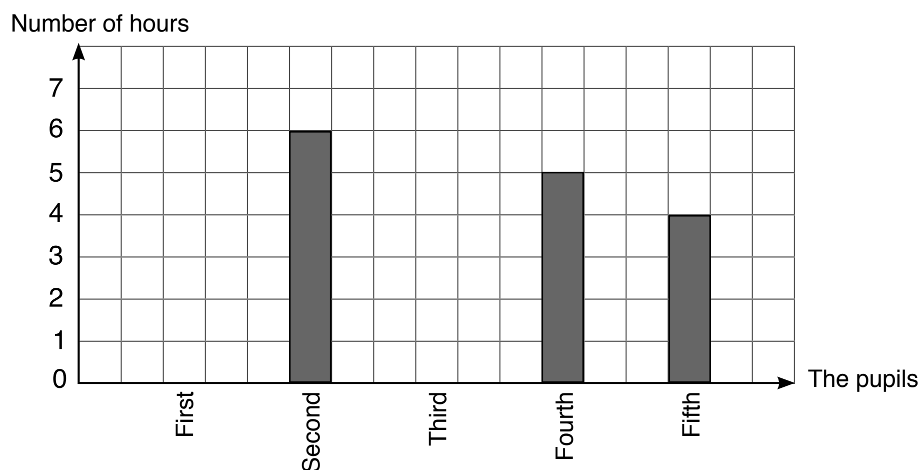
Question (5):

(a) A father divides equally 24 pounds among his four sons.

How much money does each son take?

What each son takes = ... ÷ .... = ... pounds

(b) The following table shows the number of hours that five pupils spend in studying in a day.



Pupils	First	Second	Third	Fourth	Fifth
number of hours	4	6	7	5	4

Complete the representation of these data by columns.

Model test 5

Question (1):
Complete:

(a) $5 \times 3 = 5 + 5 +$ ....

(b) The fraction which represents the shaded part of △ is ....

(c) $24 \div 4 =$ ....

(d) 1 kg $= \frac{1}{2}$ kg $+ \frac{1}{4}$ kg $+$ .... kg

(e) The reading of the watch is ....



(f) The month comes just after September is ....

Question (2):
Choose from the column (a) to the suitable of the column (b) :

(a)	(b)
(1) $\frac{1}{2}$ kg = ...	• <
(2) $\frac{1}{3}$ .... $\frac{1}{5}$	• 80
(3) One hour and a third = ... minutes	• 5
(4) .... $\times 5 = 25$	• $\frac{1}{4}$kg + $\frac{1}{4}$ kg
(5) Zero $\times 4$ = ...	• >
(6) .... $\div 1 = 4$	• zero
	• 4

Question (3):

Choose the correct answer from those between the brackets:

(a) 4 x .... = 10 + 10 (3 , 4 , 5)

(b) One hour and a quarter = ... minutes (15 , 30 , 75)

(c) (> , < , =)

(d) 2 x 5 ☐ 12 ÷ 3 (> , < , =)

(e) 3 x 6 = 2 x .... (5, 7, 9)

(f) The first month of the Hegira year is ....

(Muharram , Zu'iqida, January)

Question (4):

(a) Find the result of :

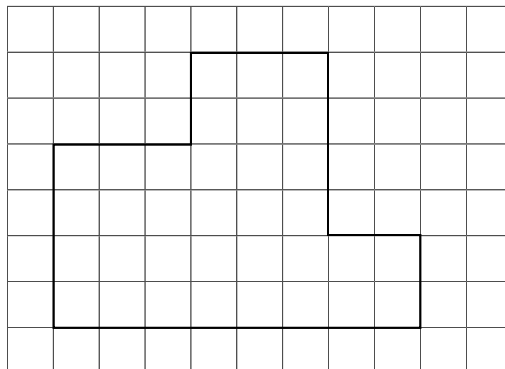
(1) 4 x 5 = ...

(2) 2 x 6 = ...

(3) 18 ÷ 3 = ...

(4) 3 x 8 = ...

(b) Calculate the perimeter of the following shape, consider the side length of the small square as a length unit:



The perimeter = ... length unit

Question (5):

(a) Salwa bought 5 kg of oranges for 6 pounds for each. How much mony did Salwa pay?

Salwa paid = ... x .... = ... pounds

(b) The following table shows the number of pupils participating in some school activities:

The activity	Tallys (marks)	Number of participants
School broadcasting	~~IIII~~ ~~IIII~~ II	
Music	~~IIII~~	
Act	IIII	
Sport	~~IIII~~ III	
Drawing	~~IIII~~ ~~IIII~~	

1. Complete the table
2. Complete the representation graph of the number of participants.

